



Inflation Report

2/2003

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The monetary policy of the Riksbank is targeted at keeping inflation at 2 per cent, with a tolerance for deviations up to ± 1 percentage point.

The Riksbank uses several different methods to communicate monetary policy issues and decisions. The Inflation Report presents the Riksbank's overall appraisal of inflation prospects in the current situation. Press releases are used to report the Executive Board's considerations and decisions. Executive Board members may differ in their opinions of future inflation. The separate minutes of the Executive Board meeting describe the general assessments and the individual members' opinions on various proposals, as well as the decision taken.

The Inflation Report aims to provide a basis for monetary policy decisions and spread an awareness and knowledge of the Riksbank's assessments to a wider public, so that monetary policy is easier for outsiders to follow, understand and evaluate. The Report is also intended to encourage a discussion of matters relating to monetary policy.

This Inflation Report reproduces the main features of the presentations and discussions of inflation at the Executive Board meetings on 22 and 28 May 2003. The Report constitutes the background to the Bank's monetary policy decision on 4 June 2003. Any divergent opinions of inflation prospects are recorded in the separate minutes of the Board meeting on 4 June, to be published on 18 June 2003.

This Report presents the Riksbank's appraisal of inflation prospects up to the end of 2005 Q2. In order to clarify the consequences for monetary policy, the analysis starts from the technical assumption that in this period the repo rate is unchanged.

Chapter 1 contains a summary of the report. Chapter 2 contains a discussion of the most probable development of inflation's principal determinants. Chapter 3 presents the Riksbank's overall assessment of inflation prospects in the main scenario and the spectrum of risks. In addition, there is a discussion of factors influencing developments in the longer term.

Stockholm, June 2003

Lars Heikensten

Governor of Sveriges Riksbank

Since the previous Inflation Report, inflation has been lower than expected. The main explanation for this is the unexpectedly rapid fall in oil prices. In April, CPI (consumer price index) inflation amounted to 2.3 per cent and UND1X inflation to 2.4 per cent.¹ Electricity prices have fallen as expected and contributed to lower inflationary pressure. As in the previous Inflation Report, the assessment is that electricity prices will contribute to further lowering the inflation rate in the near future. At the end of the forecast period, when the effects of the fluctuations in energy prices have abated, CPI inflation is expected to be below the target level of 2 per cent. Compared with the assessment made in March, the forecasts for CPI and UND1X have been revised downwards. Resource utilisation in Sweden is expected to be lower, partly due to weaker international developments, which will in turn affect the forecasts for exports and investment.

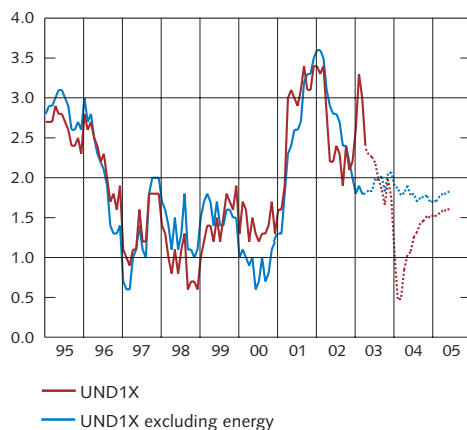
■ ■ Weaker international growth.

Over the past year, expectations of a lasting upturn in the global economy have been repeatedly disappointed and growth forecasts have had to be gradually revised down. Since last spring, several factors have contributed to increased pessimism and uncertainty and thereby hampered economic activity and global trade. These factors include bankruptcies of large corporations and corporate scandals, which have created distrust for the business sector; the fear of new acts of terrorism and a growing geopolitical unease that culminated during the spring in the Iraq war. At the same time, investment and consumption have been held back by adjustments in companies' and households' balance sheets in the wake of the burst of the stock market bubble. It is difficult to determine exactly how important these factors have been for economic developments. Now that the armed conflict in Iraq is over, the focus is once again on the underlying strength of the global recovery. However, it is still difficult to interpret the various economic indicators, as many were compiled while the war was still in progress. Nevertheless, confidence indicators in Sweden and abroad imply that optimism among households and companies is still subdued.

There are many indications that the slowdown observed in the global economy during the latter part of 2002 will continue in the near future. The labour markets in both the USA and Europe have deteriorated more than expected, which will probably have a dampening effect on consumption. Household incomes in the USA also appear to be increasing at a slower rate than expected, which will have a similar effect. Savings in central government budgets will subdue growth in Europe. All in all, this indicates a slightly slower international recovery and thereby a weaker world market growth than was forecast in the previous Inflation Report.

¹ UND1X is defined as CPI inflation excluding households' interest costs for home-owners and direct effects of changes in indirect taxes and subsidies.

Figure 1. UND1X including and excluding energy.
Outcome and forecast according to main scenario.
Percentage 12-month change



Sources: Statistics Sweden and the Riksbank.

An economic upturn is still expected in the OECD areas. GDP growth is anticipated to be 1.7 per cent in 2003 and approximately 2.5 per cent in the following two years. There are several reasons for assuming the economic upturn will be modest: the relatively high level of uncertainty in the financial markets still remains, and households and companies are expected to continue adjusting their balance sheets in the wake of the downturn on the stock market. In addition, there are structural problems in the euro area economies.

■ ■ Weak international price pressure.

The relatively modest development in global demand means that resource utilisation abroad will remain relatively low during the forecast period and international price pressure will therefore also be low. An unexpectedly rapid decline in oil prices began at the start of the Iraq war, and prices are expected to fall even further. This motivates a downward revision of import prices in the short term. As before, the krona rate is expected to strengthen over the coming two years. Relative growth rates and the Swedish current account surplus indicate this will be the case. All in all, this gives a continued weak increase in import prices. Compared with the previous Inflation Report, international export prices are expected to increase somewhat more slowly as a result of the poorer prospects for international growth. The more long term forecasts for the krona and the price of oil have not changed, however, and the forecast for import prices thus remains largely unchanged in the slightly longer term (see Table 1).

■ ■ Investment upturn in Sweden delayed.

The weaker international developments are expected to lead to exports increasing at a lower rate this year than was assumed previously. Investments in the business sector developed weakly towards the end of last year, which indicates that the expected upturn in investment has probably been postponed somewhat, despite the Riksbank's interest rate cut in March. All in all, GDP in Sweden is expected to increase by 1.2 per cent this year, 2.4 per cent in 2004 and 2.4 per cent in 2005. The basic picture still shows an economic upturn, but the recovery is expected to be slower than was previously anticipated, particularly during the current year. Resource utilisation is therefore expected to be slightly lower during the entire forecast period, compared with the assessment in the March Inflation Report.

More unutilised resources are assumed to entail wages in the business sector increasing at a slightly slower rate during the forecast period than was previously expected. At the same time, companies' secondary wage costs are expected to increase further as a result of the increase in the employer's responsibility for sick-pay. The forecast is for total labour costs to develop at a somewhat weaker rate than the assessment in the March Inflation Report. This means that domestic cost pressure is expected to be weak and to decline during the forecast period. Companies' capacity to raise prices is also expected to decline as a result of the lower level of resource

utilisation. A slight downward revision has therefore been made for domestic inflation during the forecast period (see Table 1).

■ ■ Inflation below target level one and two years ahead.

All in all, inflation is expected to continue to decline during the rest of this year as a result of lower resource utilisation and falling electricity prices. After that, it is assumed that the inflation rate will increase once again. The assessment of CPI inflation one year ahead is 1.3 per cent in the Riksbank's main scenario. The corresponding figure for UND1X inflation is 1.1 per cent. The assessment for two years ahead is a CPI inflation rate of 1.9 per cent and UND1X of 1.6 per cent. Rising mortgage rates and higher energy tax rates are the reason for the assumption that CPI inflation will be higher than UND1X.

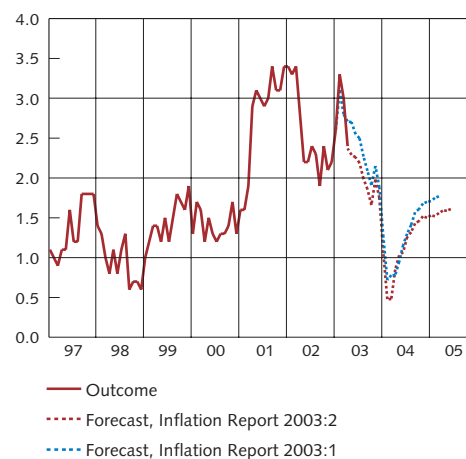
As in the previous Inflation Report, the path of inflation will be greatly affected by fluctuations in energy prices (see Figure 1). Disregarding energy prices, the rate of increase for UND1X inflation is expected to lie just below 2 per cent for the greater part of the forecast period. Compared with the previous assessment, inflation is therefore expected to be slightly lower (see Figure 2 and Table 1).

■ ■ Downside risk and lower degree of uncertainty.

The spectrum of risks is also relevant for the formation of monetary policy. The most important individual risk factors are currently linked to global economic developments, electricity prices and wage trends. When it comes to international developments, the assessment is that there is still a risk of lower inflation than was noted in the main scenario. This is partly connected with the risk of adjustment problems in the global economy being greater than anticipated, which would mean that the recovery is postponed even further. In Europe, the recovery is also slowed down by structural problems and a need for fiscal policy restraint. In addition, there is a downside risk for Swedish inflation following on from the weak dollar rate. The domestic risks for higher inflation than in the main scenario are still assessed to be the following: that electricity prices for consumers will not fall as expected, that contagion effects from higher electricity prices will be greater than expected and that the wage results of the coming bargaining rounds will be unexpectedly high. All in all, it is considered more probable that inflation will be lower than in the main scenario one and two years ahead, than that it will be higher.

The degree of uncertainty in the assessments has declined somewhat, compared with the March Inflation Report. This was published before the war in Iraq had broken out. The armed conflict is now over. The uncertainty over the war and its consequences for the global economy has thus diminished. Downward revisions in growth forecasts for the global economy should mean that the risk of an even poorer development should be less now than in March. The risks connected to developments in domestic costs are also assessed as slightly smaller. Electricity prices have also developed as expected, while the risks of higher wage increases have declined somewhat as a

Figure 2. UND1X inflation: outcome and forecasts in present and previous Inflation Reports. Percentage 12-month change



Sources: Statistics Sweden and the Riksbank.

result of the lower level of resource utilisation.

Taking into account the risk spectrum, CPI inflation is expected to be 1.2 per cent one year ahead and 1.8 per cent two years ahead. The corresponding assessments for UND1X inflation are 1.0 per cent and 1.5 per cent respectively. Adjusted for energy prices, UND1X is expected to increase by 1.8 per cent both one and two years ahead.

**Table 1. Inflation forecasts in the main scenario.
Percentage 12-month change.**

	Annual rate		12-month rate		
	2003	2004	June 2004	March 2005	June 2005
CPI	2.2 (2.5)	1.3 (1.5)	1.3 (1.4)	1.8 (2.0)	1.9
UND1X	2.3 (2.4)	1.1 (1.2)	1.1 (1.2)	1.6 (1.8)	1.6
UNDINHX	3.4 (3.4)	1.8 (2.0)	1.8 (2.0)	2.2 (2.5)	2.3
UNDIMPX	0.0 (0.5)	-0.3 (-0.3)	-0.4 (-0.5)	0.2 (0.2)	0.3
UND1X excluding energy	1.9 (2.1)	1.8 (2.1)	1.8 (2.1)	1.8 (2.0)	1.8

Note. The figures in brackets show the corresponding forecast in the previous Inflation Report. UND1X is CPI inflation excluding households' interest costs for home-owners and direct effects of changes in indirect taxes and subsidies. UNDINHX refers solely to prices for mainly domestic goods in UND1X. UNDIMPX refers to prices of mainly imported goods in UND1X.

Sources: Statistics Sweden and the Riksbank.

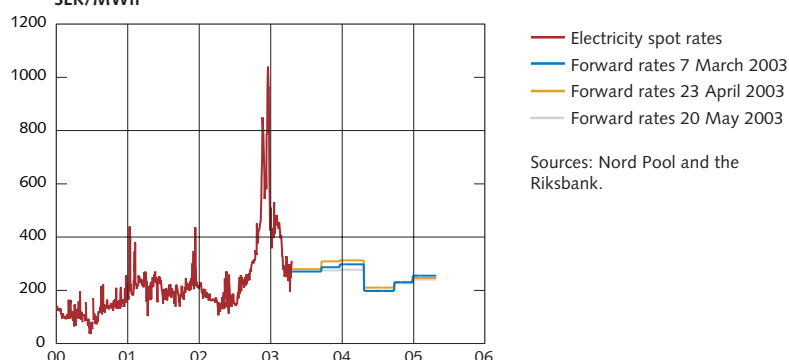
Recent developments in inflation

Since the March Inflation Report, CPI and measures of underlying inflation for the months February-April have been published. As expected, the inflation outcome was dominated by developments in energy prices. Rising energy prices contributed first to an increase in inflation. In February, CPI inflation amounted to a 12-month rate of 3.4 per cent and underlying UND1X inflation to 3.3 per cent. Energy prices then fell in March and April, which meant that the 12-month rates for CPI and UND1X inflation fell to 2.3 per cent and 2.4 per cent respectively. UND1X inflation was 0.3 percentage points lower than expected in April, which is mainly explained by the unexpectedly low oil prices. When adjusted for the effects of energy prices, UND1X inflation was 1.8 per cent in April.

The spot prices on the Nordic electricity exchange, Nord Pool, have fallen roughly as expected and in April amounted to an average of approximately 28 öre/kWh, which can be compared with an average price in the month of April during the years 2000-2002 of approximately 17 öre/kWh (see Figure B1). The spot prices on Nord Pool are mainly governed by water supply and weather.² Statistics from the trade association Svensk Energi show that flows to the Swedish storage reservoirs have been normal during the spring but are lower than last year. The volume of water in the reservoirs is unusually low (see Figure B2). Forward rates on electricity, which provide an indication of how spot prices will develop, are still at roughly the same level as when the March Inflation Report was published. All in all, this indicates that spot prices will remain at more or less the current level during the spring and autumn.

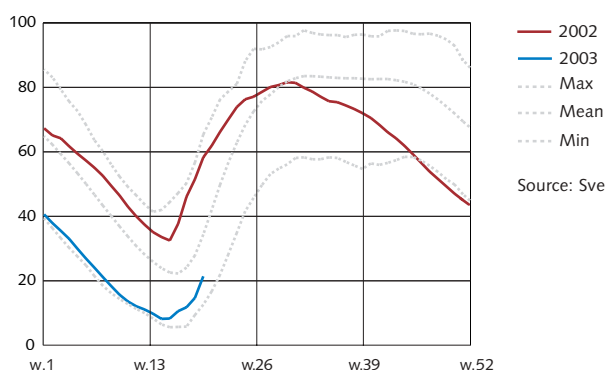
Consumer prices for electricity have also begun to fall, albeit to a lesser extent than the spot prices. The peak was reached in mid-February, when consumer prices averaged 68 öre per kWh. In May, the average consumer price was 47 öre per kWh, which is still significantly higher than the average of 29 öre per kWh during the period 2001-2002. As in the previous Inflation Report, consumer prices are expected to continue to fall during the summer and to contribute to a substantial reduction in the inflation rate over the coming year.

Figure B1. Electricity spot prices and forward rates on Nord Pool. SEK/MWh



Sources: Nord Pool and the Riksbank.

Figure B2. Water levels in storage reservoirs weekly 2002 and 2003 compared with average 1950-2001. Per cent



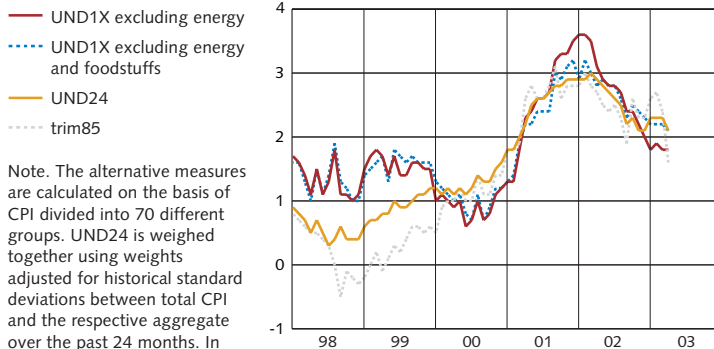
Source: Svensk energi.

The price of crude oil has fallen surprisingly heavily and in April was approximately 6 dollars lower than forecast in the March Inflation Report. In addition, the krona has appreciated more strongly against the dollar than was anticipated earlier. These factors have contributed to the price of petrol being reduced more than expected.

The usual method of analysing more long-term developments in inflation is to study measures of underlying inflation. However, underlying inflation has not been clearly defined and is accordingly measured in different ways. One common method is to exclude certain predetermined components from CPI inflation that are considered to reflect more incidental and short-lived disturbances. UND1X excludes interest costs for home-owners and the effects of changes in indirect taxes and subsidies from

² See the box entitled "The price of electricity and inflation" in Inflation Report 2003:1.

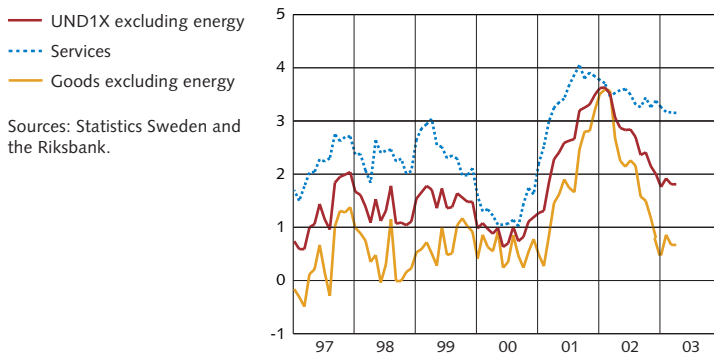
Figure B3. Different measures of underlying inflation.
Percentage 12-month change



Note. The alternative measures are calculated on the basis of CPI divided into 70 different groups. UND24 is weighed together using weights adjusted for historical standard deviations between total CPI and the respective aggregate over the past 24 months. In trim85 the 15 per cent most extreme price changes each month have been excluded, 7.5 per cent in each tail.

Sources: Statistics Sweden and the Riksbank.

Figure B4. UND1X inflation excluding energy disaggregated into goods and services.
Percentage 12-month change



Sources: Statistics Sweden and the Riksbank.

CPI inflation. UND1X excluding energy or UND1X excluding energy and foodstuffs are other relevant indexes in the current situation, as prices on energy and foodstuffs have fluctuated considerably in recent times. Another method of measuring the underlying inflation rate is to use the aid of formal statistical methods to systematically exclude or reduce the significance of groups of goods and services whose prices have been shown to vary considerably. Regardless of which of these methods of calculation is used, the underlying inflation rate appears to have fallen since last year and to be roughly in line with the inflation target of 2 per cent (see Figure B3).

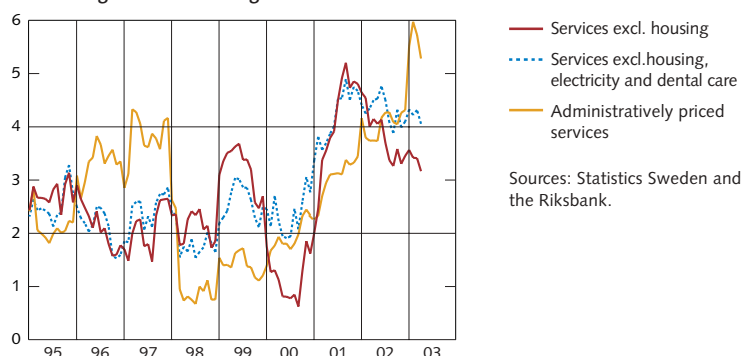
UND1X inflation excluding energy has gradually declined since spring 2002. Inflation measured by UND1X excluding energy and foodstuffs is also continuing to fall and amounted to a 12-month rate of 2.1 per cent in April. However, price trends differ considerably between different goods and services sectors (see Figure B4). The rate of increase in prices on goods has been subdued significantly over the past year. Inflation in service prices has

only declined somewhat since last year, and is still at a high level. The rate of price increase on more administratively priced services, such as municipal fees, has risen most over the past year (see Figure B5). This is probably a result of the strained finances among municipalities.

Although the objective of monetary policy is to maintain price stability in terms of consumer prices, price movements in earlier stages of production, that is to say, producer prices, are also of interest (see Figure B6). The rate of price increase on manufactured products for the domestic market has risen gradually since 2001, but is currently at a relatively low level. The low rate of increase in international export prices, together with a stronger krona have led to imported goods showing a falling rate of price increase since autumn 2001.

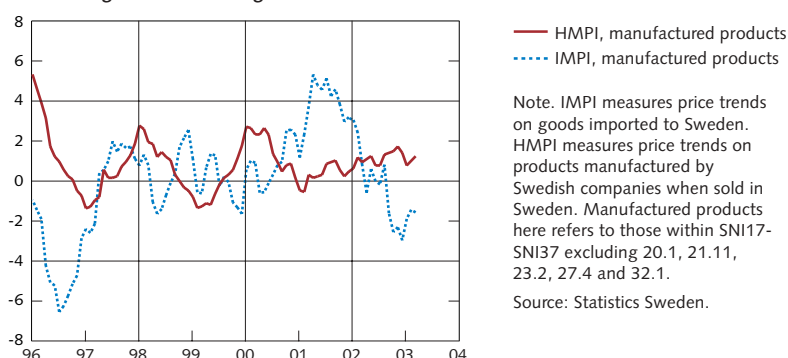
To summarise, changes in energy prices have led to severe fluctuations in inflation in recent months. Disregarding energy prices, the underlying inflationary pressure has continued to be subdued since the previous Inflation Report and various measures of underlying inflation are at around 2 per cent.

Figure B5. Service prices.
Percentage 12-month change



Sources: Statistics Sweden and the Riksbank.

Figure B6. Manufactured products at producer level, domestic market prices and import prices.
Percentage 12-month change



Note. IMPI measures price trends on goods imported to Sweden. HMPI measures price trends on products manufactured by Swedish companies when sold in Sweden. Manufactured products here refers to those within SNI17-SNI37 excluding 20.1, 21.11, 23.2, 27.4 and 32.1.
Source: Statistics Sweden.

■ Determinants of inflation

This chapter presents a main scenario for the development of inflation's principal determinants in the coming two years. It begins with an account of developments in the financial markets. This is followed by an analysis of the international situation and economic developments in Sweden.

The financial markets

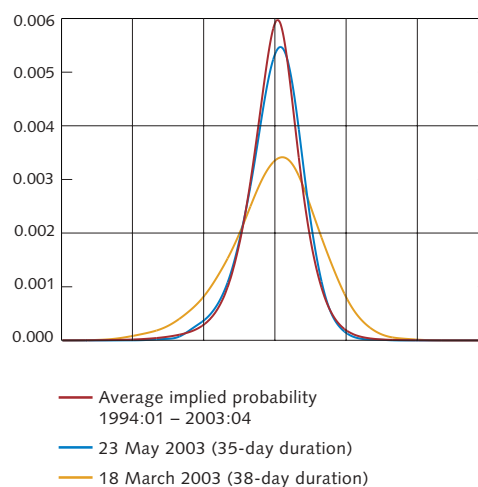
It was noted in the March Inflation Report that there was considerable uncertainty in the financial markets connected with the geopolitical situation in the Middle East. This was expressed, for instance, in a flight from equities to alternative investment such as gold and treasury bonds. Pricing in the financial markets has since then essentially reflected changes in expectations of the Iraq war and the recovery in global economic activity. Options pricing on the stock market indicates that uncertainty has declined since the previous Inflation Report (see Figure 3). Assets such as oil have also shown a price development that can also be interpreted as a decline in uncertainty. Credit risk premiums on US corporate bonds have also fallen, although they are still at rather high levels in historical terms. The decline in credit risk premiums indicates that access to capital does not constitute a limiting factor in investment growth to the extent it did before.

Despite the fact that several of the factors behind the uncertainty in the global economy over the past year have now declined in significance – geopolitical unrest, fear of terrorist threats and corporate scandals – there still remains uncertainty over the fundamental strength of the global recovery. At the same time as market participants' expectations of profits have been met, various economic indicators have shown a fragmented picture of the condition of the US economy, for instance. The financial markets have interpreted the lack of unequivocal information as a sign that the recovery will be delayed, which has resulted in falling rates on treasury bonds. Following the severe decline in share prices in recent years, the stock market has been characterised by uncertainty with regard to the long-term prospects for earnings growth and income. This uncertainty will probably continue to be considerable for some time pending more clear signals as to whether economic activity is about to improve.

■ ■ Market concern over conditions in the US economy gives weaker dollar.

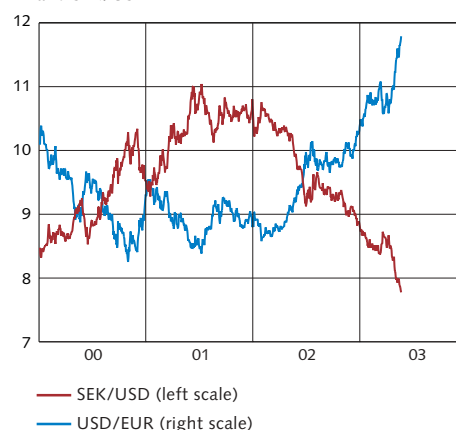
The dollar strengthened at the beginning of March in connection with the decline in the uncertainty premium linked to the Iraq war (see Figure 4). Since then the dollar has weakened markedly, particularly against the euro. This depreciation can be partly explained by the

Figure 3. Probability distribution for OMX options.³



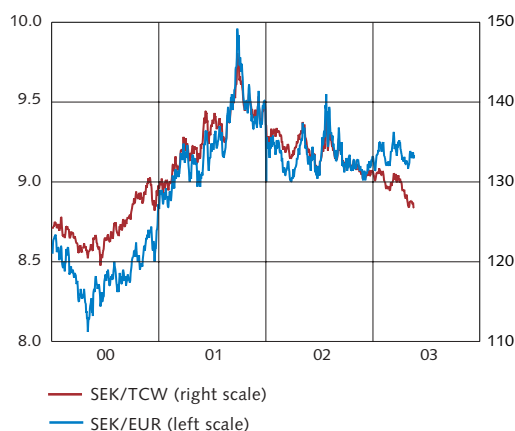
Sources: Citibank and the Riksbank.

Figure 4. Exchange rate developments USD/EUR and SEK/USD.

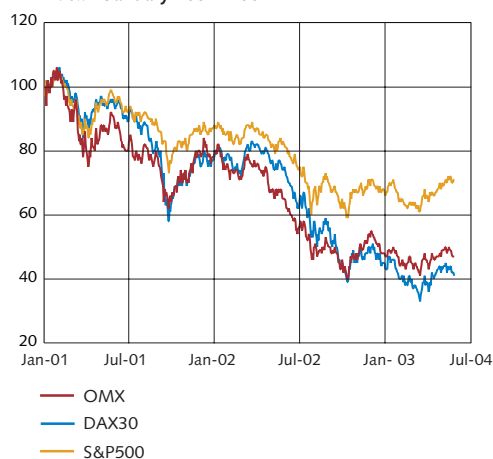


Source: The Riksbank.

³ The implied probability distribution is an estimate of the probability for a yield on the OMX index in approximately one month's time, on the assumption that market participants are risk-neutral. The surface under each individual distribution totals one. The horizontal axis shows the yield. The average of the distributions between 1994 and 2003 refers to monthly estimates based on options with a 30-day duration.

Figure 5. Exchange rate developments SEK/EUR and SEK/TCW.

Source: The Riksbank.

Figure 6. Stock market developments for OMX, S&P500 and DAX30. Index 1 January 2001=100

Source: The Riksbank.

uncertainty prevailing among market participants with regard to the strength of the economic recovery in the USA and to long-term growth prospects. On top of this comes the increasing deficit in the federal budget and on the USA's current account. Negative short-term and long-term interest rate spreads may also have contributed to subduing investors' interest in the US currency. The dollar has shown a weaker development than was assumed in the previous Inflation Report.

Since the March Inflation Report, the krona has shown a slightly weaker development against the euro than expected. It is not unusual for a small country's currency to weaken when considerable uncertainty prevails on the global financial markets. Over the past year, even the dollar has weakened against the euro. The krona has strengthened against the dollar to an extent that has meant the Swedish currency developing more strongly than expected in trade weighted terms. This gives a stronger krona in TCW terms for the current year, compared with the assessment in the March Inflation Report. As before, the krona is expected to appreciate somewhat during the forecast period, mainly due to the surplus on the Swedish current account and to relatively strong growth in the Swedish economy compared with the rest of the world. The forecast is that the krona will strengthen in trade weighted terms from 127 on average this year to 124 next year and just below this level in 2005. The forecast for two years ahead is the same as in the previous Inflation Report, which is due to the fact that the fundamental factors governing the exchange rate in the longer term have not changed to a great extent.

■ ■ More stable stock markets.

Stock market developments appear to have stabilised somewhat in recent months. Swedish stock market prices, like those in the USA, have risen by approximately 15 per cent since the previous Inflation Report and are roughly on a level with those noted at the year-end (see Figure 6).

Company reports from the first quarter show that results in both the USA and Sweden have on the whole exceeded market participants' expectations. However, earnings in Swedish companies were lower than during the first quarter of last year, and higher profits will be needed in future to meet the market's expectations for this year. In several sectors the earnings appear to have arisen through companies continuing to cut costs rather than increasing sales. This applies both in Sweden and abroad. Company reports show that sales prospects have not improved significantly since the annual accounts. Companies have been able to reduce costs through lower borrowing costs in connection with falling interest rates and credit risk premiums on corporate bonds. They have also made cutbacks in staff.

In Sweden, companies' liabilities in relation to equity have remained largely unchanged since the start of the year. Despite the

fact that profits have increased, companies' capacity to pay their interest expenses might have deteriorated somewhat as a result of weak developments in sales.⁴ Nevertheless, the Swedish stock market is expected to rise slightly as economic activity and profits improve. The still low interest rates are also expected to contribute to rising profits.

International and Swedish treasury bond rates have fallen since the previous Inflation Report, partly because of market participants' uncertainty over the strength of the economic recovery. The US yield curve has taken on a flatter incline, while the incline of the Swedish and German yield curves remain almost unchanged. The spread between Swedish and German long-term interest rates has been stable, despite some decline in Swedish inflation expectations, according to surveys and market pricing. The unexpected downturn in the Swedish long-term rate, combined with the assessment of weaker economic growth, gives cause for a revision of the interest rate forecast for the current year. However, as previously, the Swedish 5-year bond rate is expected to rise as economic activity improves, from 4.0 per cent on average this year to 4.6 per cent next year and 4.9 per cent in 2005.

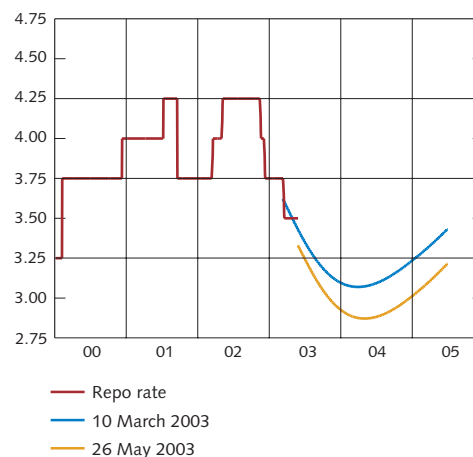
The Riksbank's decision to lower the repo rate by 0.25 percentage points to 3.50 per cent in March was expected by market participants. Surveys show that most of the domestic and foreign analysts in the financial markets are expecting further monetary policy relief over the summer.⁵ Market pricing also indicates expectations of a cut in the repo rate within the next couple of months (see Figure 7).

The money supply measured as M0 increased, year on year, by 2.2 per cent in March. The corresponding figure for M3 was 5.9 per cent (see Figure 8). The increase in M3 probably reflects to some extent investors' increased interest in liquid fixed income investment in connection with the financial unrest.

■ ■ Slightly less expansionary effects from the exchange rate.

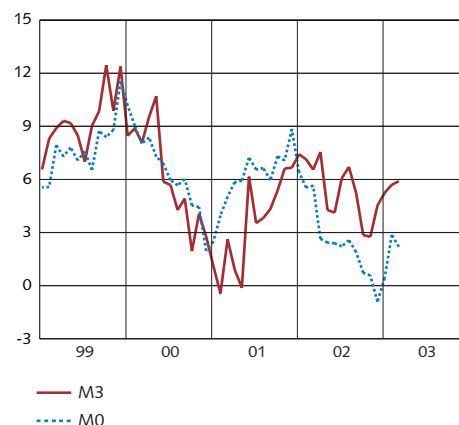
The effect of the exchange rate and the short-term interest rate has become less expansionary in recent times. This is due to the real exchange rate being strengthened and the short-term real interest rate rising somewhat (see Figure 9). However, the real long-term interest rate has fallen and the stock markets have risen, which points to the opposite effect. The fact that long-term interest rates are expected to rise and the krona to appreciate, will lead to less expansionary effects on aggregated demand in future, compared with the present situation.

Figure 7. Monetary policy expectations in Sweden according to forward interest rates. Per cent



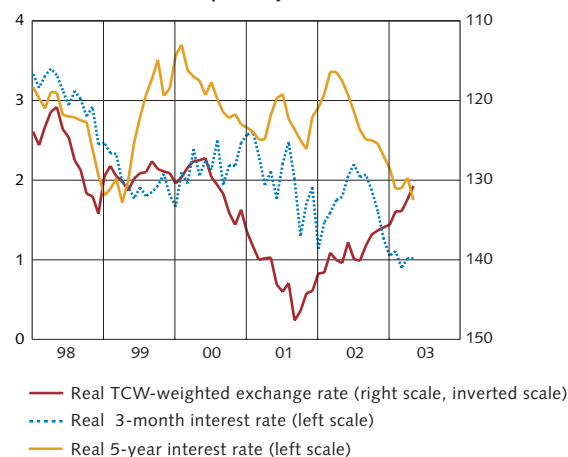
Source: The Riksbank.

Figure 8. Money supply aggregate measured as M0 and M3.⁶ Percentage 12-month change



Source: The Riksbank.

Figure 9. Real interest rate with five-year and 3-month duration respectively and real TCW-weighted exchange rate. Per cent and index respectively



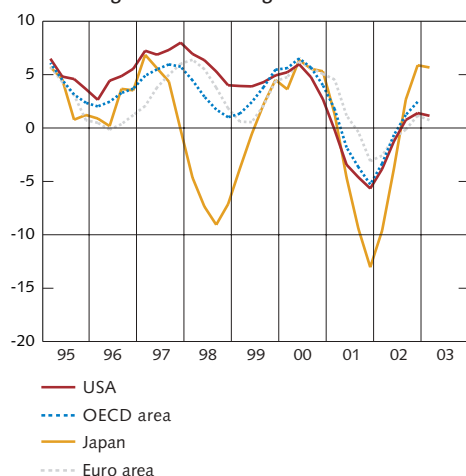
Source: The Riksbank.

⁴ See Financial Stability Report, June 2003, Sveriges Riksbank.

⁵ Market participants expect the repo rate to be lowered by 0.25 percentage points within three months' time, according to Prospera's most recent survey, published on 21 May. In two years' time, the repo rate is expected to be raised to 3.75 per cent.

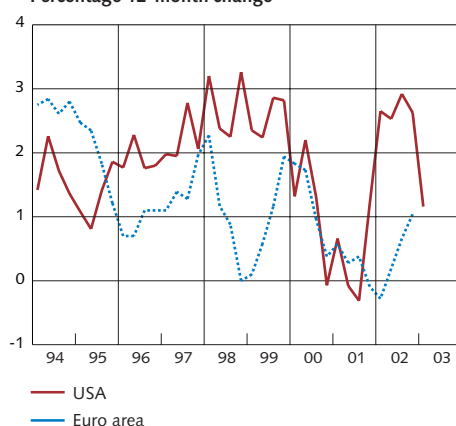
⁶ The narrow money supply aggregate M0 consists of the general public's holdings of banknotes and coins. The broad money supply aggregate M3 also contains the Swedish general public's deposits in banks and holdings of bank certificates denominated in Swedish kronor.

Figure 10. Industrial production per quarter in the OECD, the euro area, the USA and Japan.
Percentage 12-month change



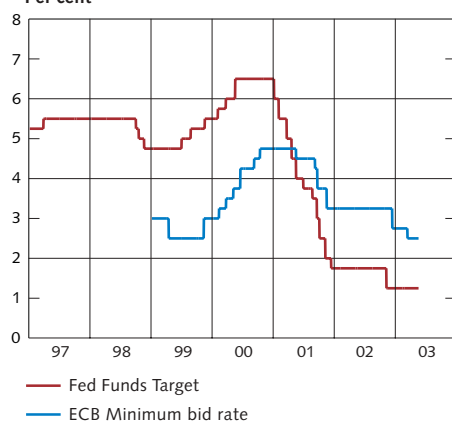
Sources: Eurostat, US Federal Reserve, Japanese Ministry of International Trade and Industry and OECD.

Figure 11. Growth in labour productivity per employee in the euro area and the USA.
Percentage 12-month change



Sources: Bureau of Labor Statistics and the ECB.

Figure 12. Policy interest rates in the USA and the euro area.
Per cent



Sources: US Federal Reserve and the ECB.

External economic activity and inflation

■ ■ Slow recovery following turnaround in global economy.

Following the recession year 2001 there was a turnaround in the global economy. A positive reversal in investment in inventories contributed to industrial production and global trade beginning to rise again. However, the recovery lost speed during autumn 2002, when the effects of the change in inventories abated, at the same time as consumption and investment continued to rise only marginally.

The weak growth during the autumn has continued during the early part of 2003. Indicators imply that developments so far have been slightly weaker than expected in the March Inflation Report. Industrial production and global trade have continued to increase, albeit at a slightly slower rate (see Figures 10 and 18). The situation in the labour market has deteriorated slightly more than expected and growth prospects for the euro area and the USA are therefore being revised down in the short term. Various confidence indicators are implying reduced optimism over the future, but the information is difficult to interpret as it was mostly collected during the period of the war in Iraq.

Productivity growth in the USA has been strong and is expected to continue developing positively during the forecast period. However, growth is expected to be slightly subdued, compared with the recent surprisingly strong development. A recovery in productivity growth in Europe appears to have begun and is expected to continue in future (see Figure 11). This is anticipated to have positive effects on companies' profits, which in turn will create conditions for increased investment.

Economic policy is also expected to contribute to the recovery during the entire forecast period. At present it is on the whole expansionary, although the situation differs between the different economic blocs. The USA is conducting very expansionary fiscal and monetary policy, while the Stability and Growth Pact limits scope for further fiscal policy stimulation in large parts of the euro area. Monetary policy has also been less expansionary in the euro area (see Figure 12).

Over time stabilisation and gradual improvement in the labour market is expected, starting in autumn 2003 in the USA and spring 2004 in the euro area. The stock markets are also expected to stabilise and gradually strengthen, which will contribute to the recovery during the forecast period.

Resource utilisation in the global economy is at present relatively low, which in itself provides conditions for a rise in growth over the coming years. The low growth rate over the past three-year period has meant that resource utilisation in the USA and the euro area has declined (see Figure 13). However, the amount of unutilised resources is not assessed to be as great as following previous recessions, as the downturn was relatively mild on this occasion. It is therefore anticipated that growth will only gradually rise towards its long-term potential rate or just above.

There are also factors holding back the recovery. The degree of indebtedness among companies and households is still relatively high, which in turn subdues demand for credit for consumption and investment (see Figure 14). However, there is nothing to indicate that the degree of

indebtedness is alarming, as neither companies' nor households' interest rate burdens are exceptionally high. Profits and disposable incomes are expected to develop positively during the forecast period, which, together with a continued low interest rate level, will also make it easier to finance the debts.

However, some concern remains in Germany, where profitability in the banking system has fallen at the same time as hidden reserves in the form of unrealised share profits have been eaten up by the stock market fall in recent years. The problems are reinforced by the weak growth rate in the Germany economy. The degree of capital adequacy in the banks is good, however, and demand for credit is slight at present. The problems in the banking sector are not therefore assessed to comprise any major obstacle to the recovery in growth over the coming years.

The geopolitical situation and the uncertainty in the financial markets have probably contributed to subduing households' and companies' expectations of the future (see Figures 15 and 16). The uncertainty may also have contributed to delaying investment decisions and dampening consumption. However, the restraining effects from these factors are expected to gradually abate during the first half of the forecast period.

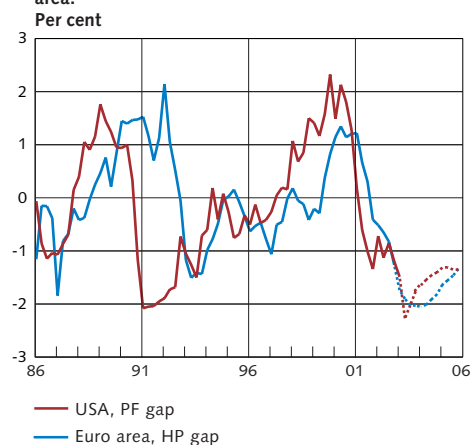
■ ■ Weak productivity growth in the Euro area.

During the first part of 2002, growth in the euro area held up fairly well. Factors contributing to this were a recovery in global trading and the weak euro. During the second half of 2002, both consumption and investment increased from one quarter to the next (see Figure 17). However, the rise during the second half of the year was weaker than expected. One possible explanation for the weak development in investment could be unexpectedly low productivity growth. For various reasons, companies have retained employees during the recession whom they have not been able to use fully in production. This has on the one hand led to poorer profits and in some cases to a need to raise prices. On the other hand, it has meant that the labour market for the euro area as a whole showed no deterioration until the end of last year.

This largely follows the normal cyclical paths for the euro area. However, productivity growth has been unexpectedly low in recent years, which could be a sign that the potential growth rate for the euro countries has been over-estimated. The productivity figures should be interpreted with some caution, however. This is partly because there are some signs that average working hours have declined, partly due to legislation on shorter working hours in some countries. This in turn may lead to lower productivity per employee. Another reason for caution is that employment has increased in the services sector, where productivity is usually lower than the manufacturing industry.

Several euro countries also have problems with their central government finances, partly arising from the weak growth rate. Some of these countries did not manage to achieve a balance in their central government finances during the boom years. Consequently the automatic stabilisers cannot operate fully and structural savings are needed to meet the requirement for sustainable public finances in the Stability & Growth Pact. This applies in particular to the three largest euro economies Germany, France and Italy.

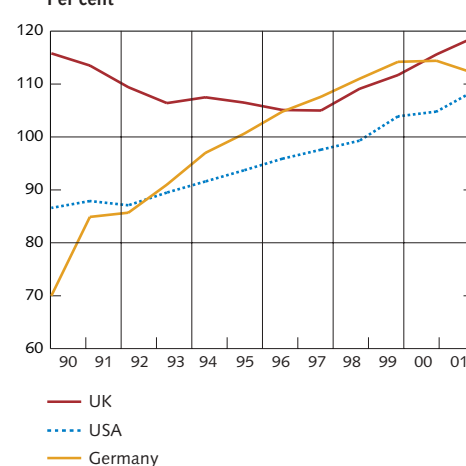
Figure 13. Output gap for the USA and the euro area.



Note. The broken lines represent forecast levels.

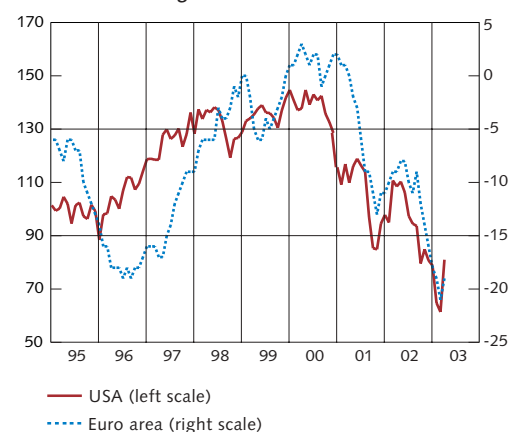
Sources: Bureau of Labor Statistics, Eurostat, NIESR, US Department of Commerce and the Riksbank.

Figure 14. Households' debt in relation to disposable income.



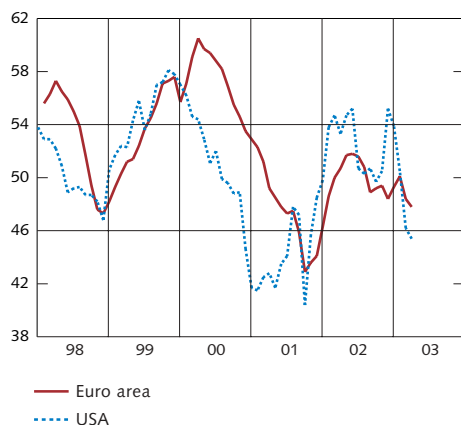
Source: IMF.

Figure 15. Consumer confidence in the USA and the euro area. Index and net figures



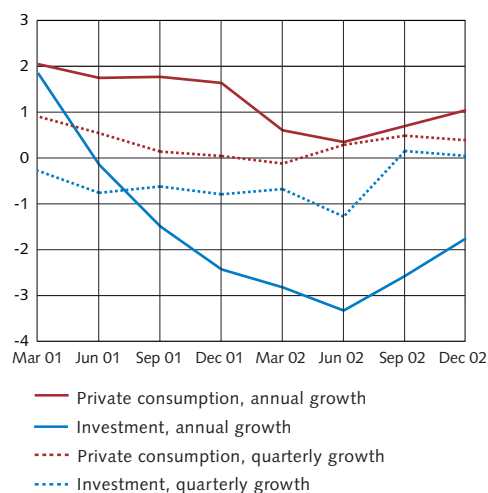
Sources: Conference Board and European Commission.

Figure 16. USA and euro area: purchasing managers index.
Index



Sources: ISM and NTC Research Ltd.

Figure 17. Consumption and investment in the euro area.
Per cent



Source: Eurostat.

Actual real interest rates differ between euro area countries with a high inflation rate and those with a low inflation rate. Certain countries are expected to show a relatively good growth rate in coming years, despite the fact that the core economies of the euro area are developing weakly. Euro countries with a lower GDP per capita are also expected to continue to grow relatively quickly and thus approach the standard of living in the rest of the euro area.

All in all, the forecast for the euro area is revised down as a result of expectations that developments in the labour market will be weaker than forecast in the previous Inflation Report (see Table 2). The strengthening of the euro is also expected to have a gradual negative effect on net exports and therefore subdue growth. In addition, tighter fiscal policy is expected in, for instance, France, which also motivates a slightly lower growth forecast in future.

■ ■ Good growth rate in Nordic countries and UK.

The Nordic countries and the UK have managed relatively well during the global recession. Developments in these countries have been marked by strong domestic demand and relatively good labour markets, particularly in the UK. Other distinguishing features have been a robust development in disposable incomes, sound central government finances and rising property prices in some of the countries. A number of factors have contributed to this development. In the UK employment has increased and in Denmark the export industry is relatively insensitive to cyclical fluctuations. In Norway, increased earnings from oil and high wage increases have held up demand, while in Finland stabilisation policy has been successful.

Recently, however, growth has been somewhat weaker than was expected in the March Inflation Report even in these countries. This leads to a downward revision in the short-term growth forecast. Some dampening of private consumption is expected as a result of the property market now entering a calmer phase. This applies in particular in the UK, where property prices have risen steeply and contributed to a growth in consumption for several years now. In Norway, investment will be subdued by the large wage increases and strong Norwegian krona resulting in a deterioration in competitiveness for large parts of trade and industry.

■ ■ USA acquires strength from productivity growth and expansionary economic policy.

The US economy began the global recession, but was also the first to turn developments around towards increased growth. The turnaround was initially driven by a strong reversal in inventories, but also to both monetary and fiscal policy being more expansionary early on. Tax relief and low interest rates made it easier for households to maintain a relatively high level of consumption despite the deterioration on the labour market, and for companies to adjust their balance sheets. Another important factor in the early improvement in economic activity in the USA is that productivity increased at a surprisingly strong rate. This was because companies had started to cut staff at an early stage in the downturn. At the same time, companies also cut down on inventories and

investment, which has meant that profits have recovered relatively quickly. This creates scope for companies to increase their investment in future.

The financial and geopolitical uncertainty probably explains why companies have been relatively cautious so far in the economic cycle. This applies to new investment, new recruitment and build-up of stocks. It is possible that weaker balance sheets as a result of the sharp fall in financial asset prices have had a subduing effect. Household savings are still at a historically low level and can be expected to increase slightly in coming years. All in all, this is expected to have a restraining effect on consumption and investment during the forecast period.

At the start of 2003, the labour market and disposable incomes in the USA developed slightly below the expectation in the March Inflation Report. This requires some downward revision to the forecast for short-term GDP growth. However, the recent weakening of the dollar has the opposite effect and is expected to contribute to both an improvement in net trade and stronger growth during the second half of 2003 than was previously anticipated.

■ ■ Japan surprises with higher growth.

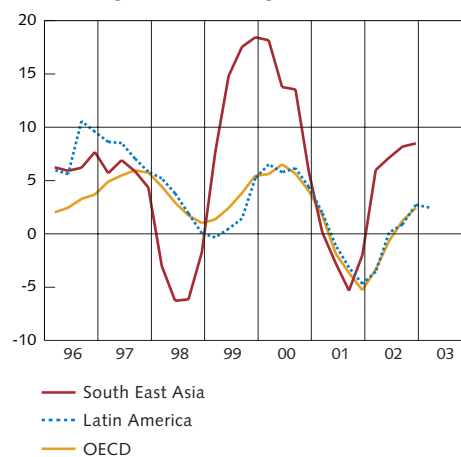
According to the National Accounts, the Japanese economy has recovered earlier than many analysts had assumed, despite several domestic indicators implying a weak development. The different pictures could partly be due to method changes in statistical production, including the means of measuring private consumption. However, in recent times an increasing number of indicators have shown an improvement in the Japanese economy. All in all, this gives cause for some upward revision to the short-term forecast in the previous Inflation Report.

However, the underlying weak growth conditions are expected to contribute to subduing the growth rate already this year. The crisis in the financial system is continuing, which prevents new credit granting and thereby an upturn in investment and private consumption. In addition, there is a growing for widespread budgetary restraint in order to manage the growing national debt and central government budget deficit. This means that the deflationary pressure in the Japanese economy is expected to prevail during the entire forecast period.

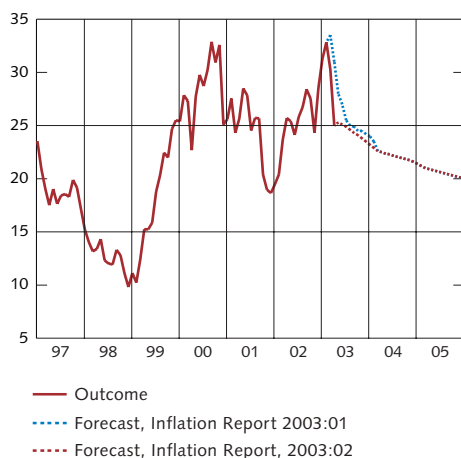
■ ■ SARS dampens East Asia, but the recovery in emerging markets is continuing.

The world's emerging markets have shown signs of a turnaround over the past year, although this development is not clear-cut. In Latin America, industrial production is increasing in the crisis economies of Argentina and Brazil (see Figure 18). At the same time, a new domestic crisis is afflicting countries in East Asia, particularly Hong Kong and China. The outbreak of the SARS lung disease quickly led to a reduction in tourism in this area, as well as to a decline in private consumption. It is unclear at present how extensive the epidemic will be, but most signs indicate that it has already peaked. Nevertheless, SARS is expected to have considerable short-term effects in the region, which will lead to growth forecasts being revised down from the previous Inflation Report.

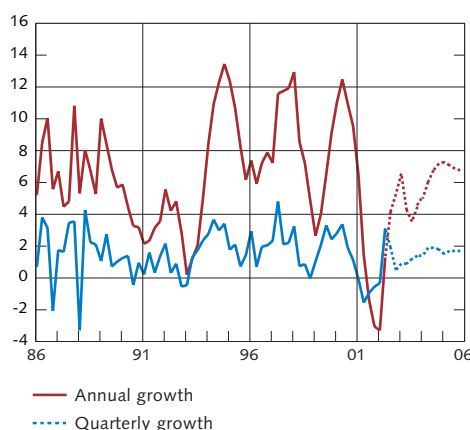
Figure 18. Industrial production per quarter in emerging markets.
Percentage 12-month change



Sources: IMF and OECD.

Figure 19. Oil prices, outcome and forecasts.
USD/barrel

Sources: IPE and the Riksbank.

Figure 20. Swedish exports: market growth.
Per cent

Sources: NIESR and the Riksbank.

Oil prices fell unexpectedly sharply following Iraq war.

Since the previous Inflation Report, oil prices have fallen heavily, primarily as a result of the rapid resolution of the war in Iraq. Apart from OPEC's compensation of the supply shortage when the attack began, the allies secured all Iraqi oil fields for continued production. Prices fell more rapidly than most analysts, including the Riksbank, had expected. This is despite the fact that two-thirds of the production in Nigeria ceased for a period as a result of domestic unrest. Oil prices are expected to remain around 25 dollars per barrel in the near future, as stock levels in North America are low and the supply is being held back in the short-term by production problems in Iraq, Nigeria and Venezuela. As the supply of oil from these countries increases, oil prices are expected to begin to fall again.

Global economic growth and price trends weaker than assumed in March report.

All in all, the forecast for growth in the global economy is being revised down. The main causes are poorer development in disposable incomes in the USA and the fact that the labour markets in both the USA and the euro area have developed more weakly than expected. The outbreak of the SARS virus means that the import forecast for East Asia is revised downwards in the short term. These changes combined give a weaker export market growth, compared with the March Inflation Report. In the slightly longer term, the main driving forces behind the recovery in global trade still remain, which is expected to mean that growth will once again approach its long-term trend level (see Figure 20).

International export prices are also expected to increase at a slower rate than was forecast in the previous Inflation Report. This is a consequence of slightly lower global resource utilisation and lower oil prices. As a result of a gradual increase in resource utilisation, however, international export prices are expected to approach the long-term trend towards the end of the forecast period.

Table 2. International conditions.
Percentage 12-month change

	GDP					CPI				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
USA	0.3	2.4 (2.4)	2.5 (2.9)	3.5 (3.5)	3.2 (3.2)	2.8	1.6 (1.6)	2.4 (2.1)	2.1 (2.3)	2.2 (2.2)
Japan	0.4	0.2 (0.3)	1.1 (0.8)	1.0 (1.1)	1.4 (1.5)	-0.7	-0.9 (-0.9)	-0.6 (-0.7)	-0.4 (-0.2)	0.2 (0.2)
Germany	0.6	0.2 (0.2)	0.4 (0.8)	1.6 (1.8)	2.0 (2.0)	1.9	1.3 (1.3)	1.1 (1.1)	1.1 (1.4)	1.4 (1.5)
France	2.1	1.2 (1.2)	0.9 (1.4)	2.0 (2.4)	2.4 (2.6)	1.8	1.9 (1.9)	1.8 (1.7)	1.5 (1.6)	1.6 (1.6)
United Kingdom	2.1	1.8 (1.6)	2.0 (2.2)	2.4 (2.5)	2.7 (2.7)	2.1	2.2 (2.2)	2.6 (2.5)	2.4 (2.4)	2.5 (2.5)
Italy	1.8	0.4 (0.4)	0.9 (1.4)	2.0 (2.4)	2.5 (2.5)	2.3	2.6 (2.6)	2.4 (2.3)	1.8 (1.9)	2.1 (2.2)
Denmark	1.4	1.6 (1.6)	1.4 (1.8)	2.1 (2.1)	2.2 (2.2)	2.3	2.4 (2.4)	2.3 (2.1)	2.0 (2.0)	2.0 (2.0)
Finland	0.6	1.6 (1.6)	2.1 (2.6)	2.8 (3.2)	3.6 (3.6)	2.7	2.0 (2.0)	1.7 (1.8)	1.7 (1.8)	1.8 (1.8)
Norway	1.7	1.3 (1.2)	1.1 (1.3)	2.3 (2.6)	2.6 (2.7)	3.0	1.3 (1.3)	2.8 (3.0)	2.0 (2.0)	2.5 (2.5)
Euro 12	1.5	0.9 (0.8)	0.9 (1.4)	2.0 (2.4)	2.5 (2.5)	2.3	2.3 (2.2)	1.9 (1.9)	1.6 (1.8)	1.7 (1.8)
Sweden's TCW										
export markets	1.4	1.2 (1.1)	1.3 (1.7)	2.2 (2.5)	2.5 (2.6)	2.2	1.9 (1.9)	2.0 (1.9)	1.7 (1.8)	1.9 (1.9)
OECD 19	0.9	1.5 (1.5)	1.7 (2.0)	2.5 (2.6)	2.6 (2.6)	2.0	1.4 (1.4)	1.8 (1.6)	1.6 (1.7)	1.7 (1.8)

	2001	2002	2003	2004	2005
Market growth for Swedish exports	0.8	2.2 (1.9)	4.7 (5.5)	6.3 (6.7)	7.0 (7.2)
OECD area export price in national currency	0.4	-0.4 (-0.4)	0.5 (0.7)	1.3 (1.4)	1.8 (2.1)
Crude oil price (USD/barrel, Brent Blend)	24.5	25.0 (25.0)	26.2 (27.7)	22.3 (22.4)	20.7 (20.7)

Note. In the United Kingdom CPI stands for RPIX and in Germany, France, Italy, Denmark and Finland for HICP. In Norway GDP refers to the mainland economy. The figures in parentheses are the assessments in the March Report. Market growth for Swedish exports is measured in terms of imports of goods to all countries that are recipients of Swedish exports, weighted with each country's share of Swedish exports of goods 2000-01.

Source: The Riksbank.

Demand and supply in the Swedish economy

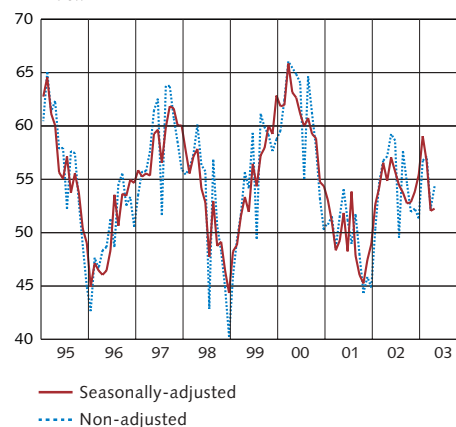
■ ■ Somewhat lower GDP growth this year and next year.

In the March Inflation Report, it was assessed that the Swedish economy would emerge from its decline in growth over the second half of 2003. Recent statistics and indicators have provided a mixed picture of economic activity. The expectations of households and firms have become more pessimistic, with the exception of certain business tendency data on manufacturing activity. Nevertheless, the overall assessment is that developments have been weaker than expected.

The signs of weakness have mainly affected the assessment for this year and next year. The weaker international economic activity also implies lower Swedish exports this year and next year. It is not anticipated that Swedish firms will be able to increase their market shares over the forecast period, although the rise in world market growth will be sufficient to stimulate exports. The rise in foreign trade is not expected to make any appreciable positive contribution to GDP growth during 2003 or 2004. Investment growth in the corporate sector is also expected to be lower. The underlying path for the growth rate in gross capital formation has not changed, but has been displaced slightly into the future. GDP growth during the forecast period will be underpinned mainly by household spending on consumption and, in the latter part of the forecast period, by investment. A continued stable growth of income, wealth and employment suggests that the consumption path for households will be relatively even.

GDP growth is now judged to be 1.2 per cent this year, 2.4 per cent next year and 2.4 per cent in 2005. This assessment takes into account the fact that next year is a leap year and contains four more working days than 2003. Excluding the effects of the extra working days, calendar-adjusted growth is estimated to be 2.1 per cent next year and 2.5 per cent in 2005. This implies a downward revision of the growth forecast by 0.5 percentage points this year and by slightly less for 2004. Resource utilisation is expected to be lower throughout the entire forecast period compared with the assessment in the March Report.

Figure 21. Swedish purchasing managers' index. Index



Source: Föreningssparbanken.

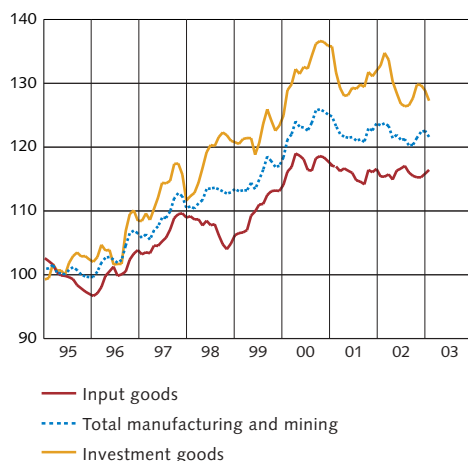
Table 3. Demand and supply in the main scenario.
Percentage 12-month change

	2002	2003	2004	2005
Household consumption	1.3	1.8 (1.8)	2.1 (1.8)	1.7 (1.8)
Public authorities consumption	2.1	0.3 (0.3)	0.9 (0.7)	0.7 (0.7)
- central government consumption	1.7	-1.5 (-1.5)	0.0 (0.0)	0.1 (0.1)
- local government consumption	2.3	1.0 (1.0)	1.3 (0.9)	0.9 (0.9)
Gross fixed capital formation	-2.5	-0.8 (2.5)	5.9 (7.1)	5.1 (4.4)
Stockbuilding, contribution	-0.1	0.3 (0.3)	0.1 (0.1)	0.0 (0.0)
Exports	0.4	3.3 (4.0)	4.9 (4.9)	5.8 (6.0)
Imports	-2.7	3.4 (4.6)	5.7 (5.7)	5.5 (5.5)
GDP at market values	1.9	1.2 (1.7)	2.4 (2.4)	2.4 (2.4)

Note. The forecast refers to actual growth. The figures in parentheses are the forecasts in the March Inflation Report, which did not fully include the calendar effects. In order to enable a comparison of the two forecasts, a calendar adjustment of the current forecast must be performed. This gives GDP growth of 2.1 per cent in 2004 and 2.5 per cent in 2005, i.e. a downward revision of 0.3 percentage points for 2004 and an upward revision of 0.1 percentage points for 2005.

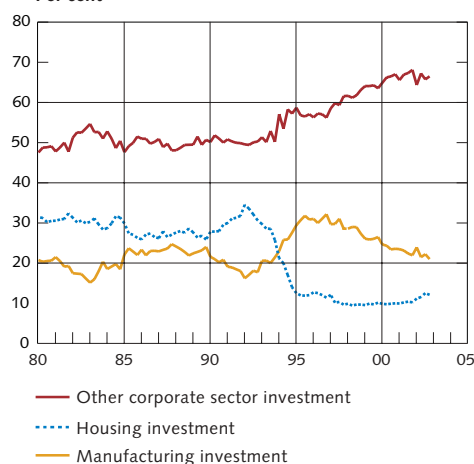
Sources: Statistics Sweden and the Riksbank.

Figure 22. Industrial production.
Daily-adjusted and seasonally-adjusted indices.
Index 1995=100



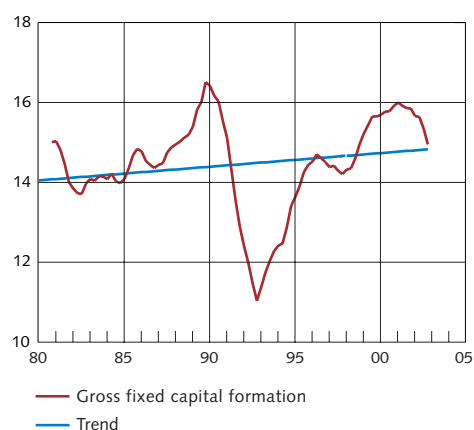
Source: Statistics Sweden.

Figure 23. Investment in housing and manufacturing and other corporate sector investment as percentages of total corporate sector investment. Per cent



Sources: Statistics Sweden and the Riksbank.

Figure 24. Total gross fixed capital formation excluding housing as a percentage of GDP at current prices. Per cent



Sources: Statistics Sweden and the Riksbank.

■ ■ Uncertain industrial climate.

Business tendency surveys from the National Institute of Economic Research have indicated a revival in manufacturing activity, albeit at a slow rate. At the beginning of the year, manufacturing firms were optimistic. This optimism has been subdued, however, although the confidence indicator for the manufacturing industry still remains higher than the historical average. The latest business tendency survey has also indicated that production volumes in recent months have increased in line with expectations. Nevertheless, the signals from the manufacturing industry are mixed. The March purchasing managers' index fell back to a level indicative of stagnation, i.e. an index of around 50. In April, the index was still at the same level (see Figure 21).⁷

The index of industrial production as a whole has exhibited a wavering trend. The production of input goods and investment goods seems to have largely stagnated since 2000 (see Figure 22). Chemical products accounted for the sharpest rise in production in the first quarter. Petroleum refineries also increased their output fairly substantially at the beginning of the year. This was most likely due to the cold winter and the hoarding of petroleum products that occurred at the prospect of war in Iraq.

■ ■ Lower corporate sector investment this year.

Investment declined more than expected towards the end of last year. During the fourth quarter of 2002, corporate sector investment dropped 8.5 percentage points compared with the corresponding period the previous year. The weak trend was attributable to a number of factors including the economic climate and the low level of capacity utilisation. It is also likely that considerable uncertainty and pessimism have restrained firms' willingness to invest.

A retrospective look at the investment trend shows that the composition of corporate sector investment has changed markedly over the 1990s (see Figure 23). Housing investment receded at the beginning of the 1990s from a share of approximately 30 per cent, and has hovered around 10 per cent since 1994. Following a sharp rise during 1994-1995, investment in manufacturing has returned to the 1980s level of 20 per cent. Other corporate sector investment has risen continually to a current level of just below 70 per cent. Thus, weaker demand for other corporate sector investment could have a considerable effect on total corporate sector investment. It was primarily this sector that reduced its investment during the fourth quarter last year. Some of the businesses included in this sector are wholesale and retail trade, post and telecom services and transportation.

Since the March Inflation Report, there has been an apparent easing in the general level of uncertainty over the economy. At the same time, there are signs of continued pessimism. General sentiment and the weak outcome last year have given cause for a downward

⁷ An index of 50 means that the level of activity is unchanged and that no rise or fall can be perceived.

adjustment of corporate sector investment in particular. Thus, the rise in investment that is expected to accompany a revival in economic activity is now foreseen at a later stage. The interest rate cut in March is expected to gradually stimulate investment. An assessment of the long-term investment trend can also be made by analysing investment as a percentage of GDP (see Figure 24). The downward revision of the investment growth forecast for 2003 implies that the percentage of investment at current prices is estimated to fall short of the trend. While the investment forecast for this year and next year has also been revised downward, investment in 2005 is judged to rise somewhat more than assumed in the March Inflation Report (see Figure 25).

According to the business tendency survey, manufacturing firms are still satisfied with the size of their finished good stocks, while there appears to be a slight surplus of input stocks. All in all, the size of manufacturing firms' stocks seems close to the desired level and remains in line with the assessment in the March Inflation Report. However, in the wake of slower economic growth, an involuntary build-up of stocks may occur, although there are currently no indications of such a development. It is anticipated that manufacturing firms will increase their stocks over the forecast period as economic activity grows stronger. On the whole, the contribution is expected to decrease gradually (see Table 3).

■ ■ Rise in both exports and imports of goods.

World market growth last year was approximately 2.0 per cent. Despite the weaker krona and a favourable development of relative prices, Swedish firms increased their market shares only marginally in 2002. Following a decline in the autumn, exports of goods have now begun to rise once again (see Figure 26).

Over the coming three years, world market growth is expected to be appreciably stronger than in 2002 (see Table 4). It is primarily the category "Other countries" that is anticipated to account for this rise. These include central and eastern Europe, Russia, Asia and Latin America. The EU countries will also make a relatively large contribution to the rise. The direct contribution from the United States is not foreseen as particularly large, although the US market is also expected to grow.

Table 4. Swedish export market growth, contributions from various regions.

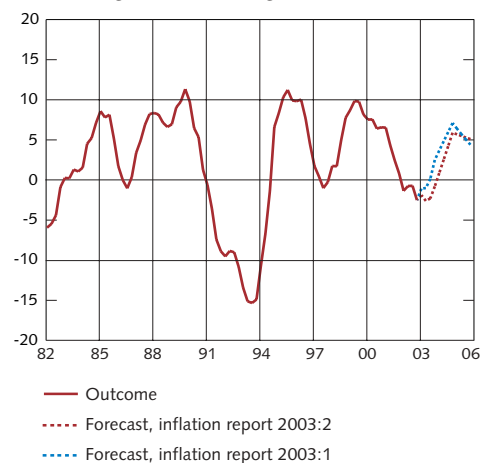
	Weights	2003	2004	2005
Nordic region and UK	28.2%	0.6	1.4	1.6
EU*	34.4%	1.8	1.8	2.2
United States	10.2%	0.3	0.7	0.8
Other countries	27.2%	2.0	2.3	2.5
Total	100%	4.7	6.3	7.0

* excluding the United Kingdom, Denmark and Finland

Source: The Riksbank.

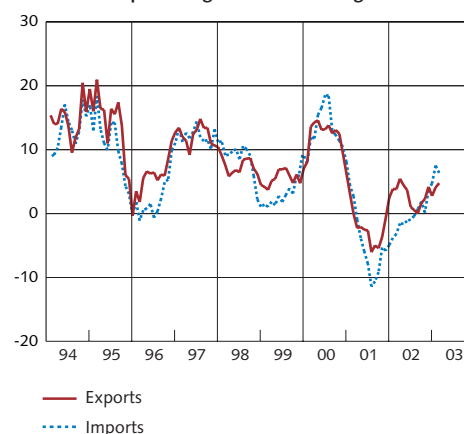
Thus, export market growth is expected to be favourable in the time ahead, although somewhat weaker this year than anticipated in the March Inflation Report. Swedish firms will benefit from competitive advantages in 2003 following last year's depreciation of the krona, as the effects of this can be assumed to have been delayed. On the other

Figure 25. Gross fixed capital formation including forecast for 2003 - 2005.
Percentage 12-month change



Sources: Statistics Sweden and the Riksbank.

Figure 26. Volume of exports and imports of goods.
Smoothed percentage 12-month change



Source: Statistics Sweden.

hand, it is judged that the decline in the telecom industry will continue to subdue exports of goods in 2003. Also, it is expected that firms will not be able to increase their market shares over the coming two years as a deterioration in competitiveness is foreseen from a number of factors including the stronger krona. All in all, it is assumed that export growth will be somewhat slacker this year and next year.

In 2001 and 2002, there was a reduction in the volumes of imported goods. This was caused in part by the low manufacturing activity and lower investment. Furthermore, the weak krona contributed to lower demand for imports. The latest foreign trade statistics point to strong growth in imports of goods during the initial months of this year. Imports of goods rose by approximately 5 per cent in value from January-April compared with the corresponding period last year. Given that import prices were largely unchanged during the same period, the rise in volume should be approximately the same. A breakdown of the statistics for January and February indicate a sharp rise in imports of crude oil and petroleum products, which was most likely due to the cold winter and hoarding at the prospect of a war in Iraq. This implies that the rise in imports may have been due to transitory effects.

Growth in imports of goods is forecast to be somewhat lower than anticipated in the March Inflation Report. The downward revision for investment growth in 2003 has given cause to expect a weaker rise in import demand as early as this year. In line with a strengthening in economic activity, imports of goods are expected to increase.

■ ■ Trade in services difficult to assess.

Growth in foreign trade in services is difficult to assess. Just over half of this comprises so-called other services which include compensation for the use of patents and other rights, insurance services, consulting services and intermediation of goods. Tourism accounts for approximately 20 per cent of exports of services and 30 per cent of imports of services. It can be assumed that the Iraq war and the subsequent concern over terrorist attacks as well as the spread of SARS will have a negative impact on travel abroad this year. In addition, statistics released by the Swedish Civil Aviation Administration have shown a drop of 5 per cent in the number of international passengers at Swedish airports during the first quarter this year compared with the same period last year. In relation to the March Inflation Report, growth in exports of services and particularly imports of services has therefore been revised downward slightly for this year.

■ ■ Fiscal policy less expansionary.

Since the March Inflation Report, the Government and coalition parties presented their Spring Fiscal Policy Bill for 2003. The budget included a proposal for savings and technical adjustments of just over SEK 8 billion this year and an additional SEK 6 billion in 2004 so as not to exceed the expenditure ceiling. The size of the proposed savings is largely the same as was foreseen in the March Inflation Report.

An important aspect of the Government's proposal is a reduction in the costs of sick leave. Part of the proposal involves an extension of the period during which employers are responsible for sick pay, from

the current two weeks to three as from 1 July 2003. The proposals are expected to have an impact on firms' secondary wage costs.

Furthermore, the Government has proposed that sickness benefit for the unemployed be reduced to correspond to the compensation received from unemployment insurance and that sickness benefit be reduced from the 21st day of illness. In addition, the purchase of defence equipment for a total of SEK 1.4 billion has been postponed while a total of SEK 1.5 billion in savings will be made on roads and railways in 2003 and 2004. Nevertheless, estimates indicate that additional savings measures may be required if central government expenditure is to remain within the expenditure ceiling.

The public sector's financial surplus is expected to improve gradually over the forecast period and is estimated to average 1 per cent of GDP over the entire forecast period (see Figure 27). One conventional way to analyse the stance of fiscal policy is to filter out cyclical influences on the public finances and analyse changes in the underlying structural balance. When including various carry-over effects, estimates indicate that the structural surplus will rise somewhat during the forecast period and approach 2 per cent of GDP. The structural surplus should be close to 2 per cent of GDP every year in order to reach the goal of a 2 per cent surplus in the financial balance on average over a business cycle. The deterioration of the structural balance in previous years due to comprehensive tax cuts and spending reforms suggests that fiscal policy has been relatively expansionary during these years. The structural balance is expected to improve this year and next year as a result of the announced savings measures and the rise in local government taxes that is judged to be necessary to enable local government budgets to be balanced. Consequently, the stance of fiscal policy over the forecast period can be described as neutral or weakly restrictive.

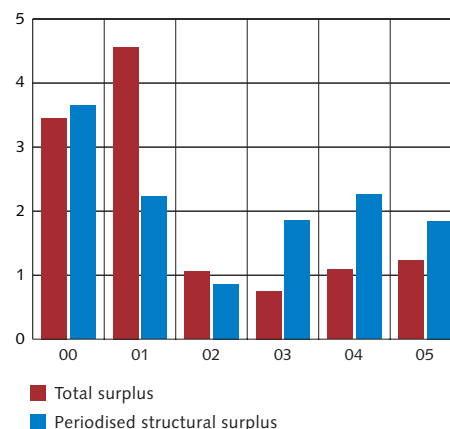
■ ■ Increase in local government consumption next year.

The weak growth in employment will have a negative impact on local government economies as it will imply slower growth in the tax base. In spite of the fact that the total local government tax rate was raised by an average of 0.65 percentage points to approximately 31.2 per cent in 2003, the assessment in the March Inflation Report was that local governments would have to raise taxes further in 2004. This assessment remains despite the increase in central government subsidies to local governments next year. Demand for local government services continues to be strong while wage increases in the local government sector are expected to be somewhat higher than in the economy as a whole over the entire forecast period.

Employment in the public sector has continued to rise, however, in contrast to the assessment in the March Inflation Report. This has caused an upward revision of local government consumption, as approximately 70 per cent of local government consumption comprises wage costs. At the same time, the conflict between the Municipal Workers' Union (MWU) and the Swedish Association of Local Authorities is expected to lead to temporarily lower local government consumption.

In the Spring Fiscal Policy Bill, it was announced that the local

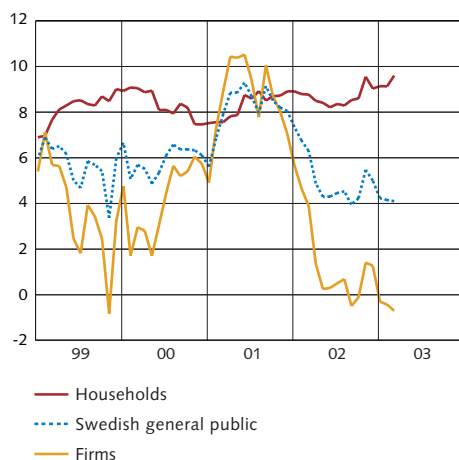
Figure 27. Consolidated public sector financial surplus and periodised structural surplus.
Per cent of GDP



Note. The structural surplus is the consolidated public sector financial surplus adjusted for the cyclical effects of the output gap. The periodised structural surplus is the structural surplus after reallocations of some tax income between the years have been carried out.

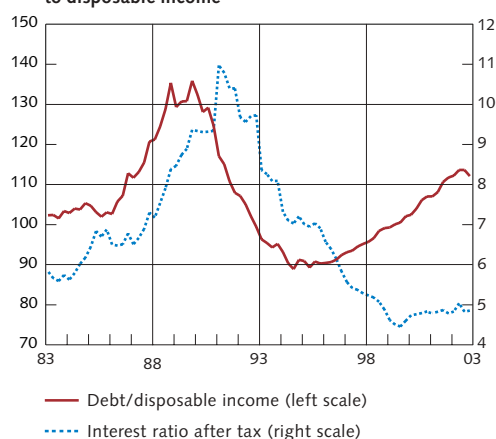
Sources: The Ministry of Finance, Statistics Sweden and the Riksbank.

Figure 28. Lending to the Swedish general public.
Percentage 12-month change



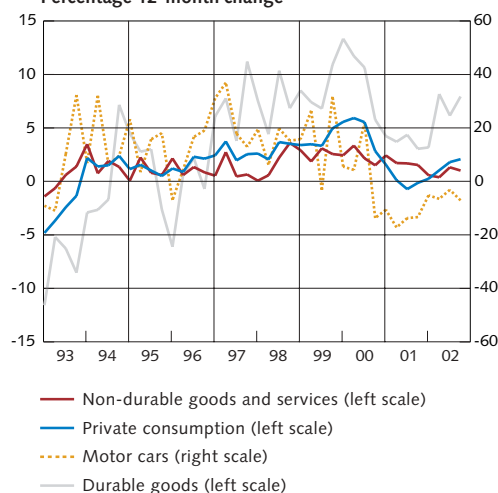
Source: The Riksbank.

Figure 29. Households' debt ratio and interest ratio.
Debts and interest expenditure after tax in relation to disposable income



Sources: Statistics Sweden and the Riksbank

Figure 30. Household consumption expenditure.
Percentage 12-month change



Source: Statistics Sweden.

government sector would be allocated funds through an extension of the temporary employment support system. In addition, the extra SEK 200 that all wage earners pay in state income tax will now fall to the municipalities and county councils. These additional contributions were not included in the assessment in the March Inflation Report. It is expected that the contributions will partly be used to boost employment in healthcare, education and nursing, and partly to improve the financial situation of the municipalities and county councils. This is estimated to correspond to an upward adjustment in the growth forecast for local government consumption of approximately 0.4 percentage points in 2004 compared with the assessment in the March Inflation Report (see Table 3).

■ ■ Somewhat weaker growth in disposable income this year.

The view of household income has not changed decisively since the March Inflation Report, in spite of the fact that a number of new proposals in the Spring Fiscal Policy Bill and a somewhat different assessment of the employment trend are expected to slightly subdue growth in household disposable income. Slacker growth is foreseen in wage costs this year due to the fact that hourly wages are rising slower than was assumed in the March Inflation Report. It is expected that public sector transfers to households will make a relatively substantial contribution to real income growth this year. The major part of this contribution is a result of reforms decided upon in previous years, such as the rises in unemployment compensation and pensions. The proposals to change sickness benefit are expected to have a negative impact on the growth of disposable income, as is the assumption of further rises in local government taxes next year.

Lending to the Swedish general public has been rising for around one year now, at a stable annual rate of approximately 4 per cent (see Figure 28). It is mainly households who have increased their borrowing from both banks and mortgage institutions. This is probably due to prices in the housing market still being elevated, as well as the level of sales. Households' debts have increased tangibly in recent years. During 2002, however, the debt ratio, that is, total debt in relation to disposable income, appears to have stabilised. Households' debt ratios are considerably lower than at the beginning of the 1990s, when the bank crisis was triggered (see Figure 29). Despite the increasing level of debts, the capacity to service debts is relatively good.⁸ The interest rate burden, expressed as interest expenditure after tax in relation to disposable income, is low, at around 5 per cent. Household wealth in properties should also have increased somewhat over the past quarter, albeit at a slower rate than before. Similarly, the stock market appears to have stabilised. During the forecast period, house prices are expected to continue to rise as a result of the shortage of housing, primarily in metropolitan regions. A relatively limited level of new building and continued rising incomes contribute to this development. However, given that long-term interest rates are expected to rise and households' disposable incomes are expected to increase more slowly in 2003 than in

⁸ See Financial Stability, June 2003, The Riksbank.

previous years, house prices are expected to rise at a slower rate in future, in accordance with the earlier assessment.

■ ■ Household consumption subdued.

Household spending on consumption stagnated in 2001 after rising for approximately four consecutive years by around 4 per cent per year. Household spending on durable goods increased throughout 2002, while consumption of non-durables rose to a relatively small extent (see Figure 30). Total consumption last year rose by 1.3 per cent and the rate of growth increased towards the end of the year. The outcome was in line with the assessment in the March Inflation Report.

According to the life-cycle hypothesis, consumption is determined by households' wealth as well as their expected income from employment in the future. In addition to household expectations of the future, consumption is assumed to be directly affected by unemployment. This can be seen as a measure of the uncertainty in household expectations of their future income.

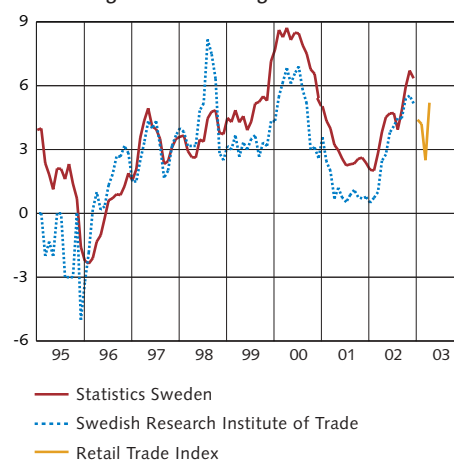
Households' real disposable income is now expected to increase somewhat less in 2004 and 2005 compared with the assessment in the March Inflation Report, although the difference is marginal and is not anticipated to affect household consumption. Neither will growth in asset prices differ appreciably from the March assessment. Property prices rose by approximately 7 per cent last year compared with 2001 and continued to increase at approximately the same rate during the first three months of the year. Other indicators of consumption growth, such as retail turnover, have risen as expected (see Figure 31). On the whole, however, households' expectations have become more pessimistic regarding both the economy and unemployment (see Figure 32). It should be noted, nevertheless, that households are somewhat more optimistic about their own economy. Although the effect is small, it is also this expectation variable that has an effect on household consumption expenditure.

Thus, since the March Inflation Report, all the variables underpinning household consumption have generally developed in line with the March forecast. However, the assessment in the March Report did not include the full effects of the leap year in 2004, which means households will have one extra day on which to consume compared with 2003 and 2005.

■ ■ Deterioration in labour market conditions this year.

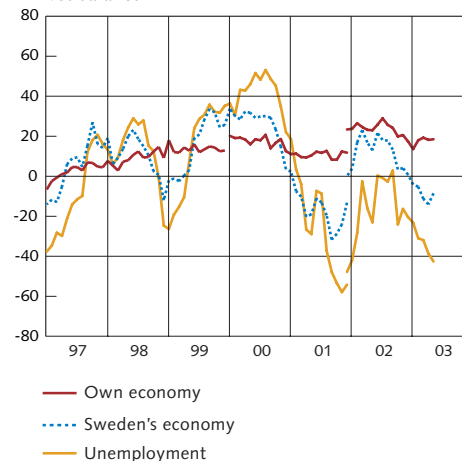
The development in the labour market has continued to be weak, and employment has continued to fall. According to the labour force surveys, employment was largely unchanged during the first four months of the year, while there was an increment in the labour force of 27,000 people compared with the corresponding period last year. In the March assessment, it was not anticipated that there would be such a large increment in the labour force. The full effects of the phasing out of the Adult Education Initiative and the cutbacks in National Labour Market Board training programmes were underestimated. At the same time, employment growth was unexpectedly positive, as the previous assess-

Figure 31. Retail sales growth.
Percentage 12-month change



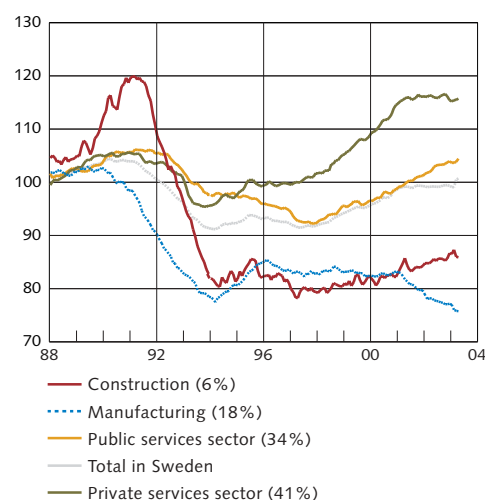
Sources: Swedish Research Institute of Trade and Statistics Sweden.

Figure 32. Households' expectations of their own economy, Sweden's economy and unemployment.
Net balance



Sources: The National Institute of Economic Research and Statistics Sweden.

Figure 33. Number of people in employment in various sectors.
Seasonally-adjusted three-month moving average.
Index 1987=100



Note. The figures in parentheses are the percentages of the total.
Source: Statistics Sweden.

Figure 34. Labour force, employment and open unemployment. 100s of persons and per cent



Note. The broken line represents the forecast.

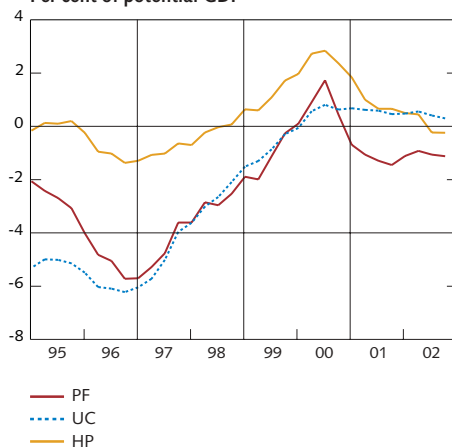
Sources: Statistics Sweden and the Riksbank.

Figure 35. Number of employed and absentees from work due to illness. 100s of persons, seasonally-adjusted, 3-month moving average



Source: Statistics Sweden.

Figure 36. Econometric estimates of the output gap. Per cent of potential GDP



Note. HP stands for the Hodrick-Prescott (or Whittaker-Henderson) filter. UC is the Unobserved Components method and PF is the Production Function approach.

Sources: Statistics Sweden and the Riksbank.

ment had anticipated a much sharper fall in employment at the beginning of the year. Staff cutbacks were foreseen mainly in the public sector due to the strained financial position of municipalities and county councils. However, the number of people in employment continued to rise in this sector (see Figure 33). In the corporate sector as a whole, employment has continued to develop negatively. Open unemployment has risen continually since last autumn. In April, unemployment was 4.6 per cent.

Employment is expected to develop largely in line with the assessment in the March Inflation Report. As economic activity improves, demand for labour will rise. The fact that the number of people in employment increased more than expected at the beginning of the year has prompted an upward adjustment of the employment path for the current year (see Figure 34). Employment in municipalities and county councils is forecast to be higher in 2004, while slightly lower demand is foreseen in the corporate sector. An equivalent upward adjustment of the path for the labour force has been made compared with the March Inflation Report. The labour force is expected to rise at an even rate over the entire forecast period. Meanwhile, it is judged that unemployment will increase this year and thereafter begin to fall (see Figure 34 and Table 5).

■ ■ Growth in number of hours worked also to fall this year.

Last year, the number of hours worked decreased by 1.2 per cent due to a fall in the mean working time (average hours worked per person in employment). This was partly a result of an increase in absenteeism. The number of absentees rose by almost 4 per cent last year.⁹ When adjusted to exclude absenteeism, the mean working time last year fell by 0.6 per cent. This implies that half of the decrease in mean working time per employee was attributable to absenteeism. The remainder was due to factors such as a decrease in both overtime and regular working time.¹⁰

During the first four months of the year, there was a continued rise in sick leave, although the rate of increase diminished. Sick leave tends to follow the economic cycle and thereby move in tandem with developments in employment. Since 1997, there has been a rise in both employment and sick leave, with the exception of the last two years during which sick leave continued to rise and employment remained unchanged (see Figure 35).

Mean working time is also affected by how bank holidays fall during the year. For example, there are fewer working days this year than last year. Next year, however, contains an unusually large number of working days. In addition to being a leap year, several bank holidays will fall on Saturdays and Sundays. In all, the number of working days will increase by 1.6 per cent in 2004. In 2005, the number will be fewer once again, falling by 0.4 per cent. It is mainly these adjustments for the

⁹ Of these, 38 per cent were absent due to illness, 27 per cent due to holidays and 13 per cent due to care of children.

¹⁰ Last year, overtime decreased by almost 7 per cent and normal working time by approximately 0.5 per cent.

number of working days that have resulted in a revised forecast for hours worked compared with the assessment in the March Inflation Report.

■ ■ Moderate resource utilisation.

According to the assessment in the March Inflation Report, resource utilisation had been somewhat lower in recent years than was previously estimated. One reason for this slight change in perspective was that the revisions of the National Accounts resulted in somewhat higher figures for growth and productivity growth, while inflation remained unchanged. Figure 36 shows three different estimates of the output gap. These show a decrease in the output gap according to both the production function approach and the simple HP filter, but not when measured by the UC model. The higher level of resource utilisation produced by the UC method is due to the fact that the model's assessment of economic activity is based on actually observed inflation. The relatively high rate of inflation in recent times is partly interpreted as a sign of high resource utilisation, despite the fact that the rise in prices has essentially been attributable to transitory factors. Other measures of economic activity and indicators of labour market shortages, bottlenecks according to the business tendency surveys and data on the level of difficulty in recruiting staff, have reinforced a picture of moderate resource utilisation.

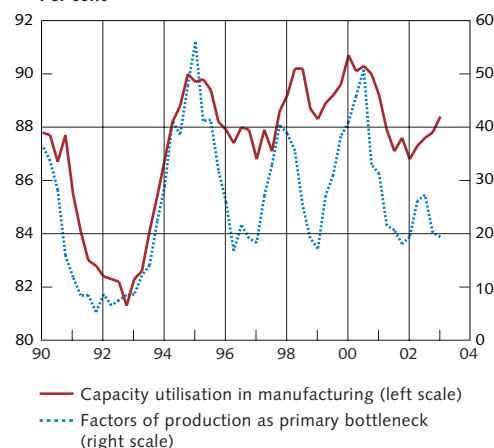
Furthermore, it appears that resource utilisation fell slightly over the course of the first quarter according to data from the business tendency survey. In both manufacturing and construction, the percentage of firms reporting bottlenecks has decreased (see Figures 37 and 38). In manufacturing, the shortage of skilled workers and technical employees has continued to fall (see Figure 39). However, a Statistics Sweden survey of capacity utilisation has indicated a continued rise in the rate of utilisation during the first quarter, thus painting a different picture than the business tendency survey. The reduction in resource utilisation is most evident in businesses such as computer consultancies, other business services and haulage firms, where the shortage of labour has dropped considerably (see Figure 40).

It appears that the public sector has continued to have difficulties in recruiting university-educated staff to education and healthcare. In addition, the National Labour Market Board has a reported shortage of both assistant nurses and personal assistants in certain areas. However, the average number of unfilled job vacancies in the public sector has been somewhat lower in recent months compared with one year ago.

The number of both new job vacancies and unfilled job vacancies rose during the period January-April this year (see Figure 41). Comparing the number of unfilled job vacancies in relation to the number of new job vacancies provides a measure of the difficulty in recruiting staff. According to this measure, resource utilisation was unchanged compared with the corresponding period last year.

One way of illustrating problems of resource utilisation in the labour market is through the use of a Beveridge curve (see Figure 42). This

Figure 37. Capacity utilisation in manufacturing and proportion of manufacturing firms with access to factors of production as primary bottleneck.
Per cent



Sources: The National Institute of Economic Research and Statistics Sweden.

Figure 38. Proportion of construction firms with access to labour as the primary bottleneck.
Seasonally-adjusted, per cent



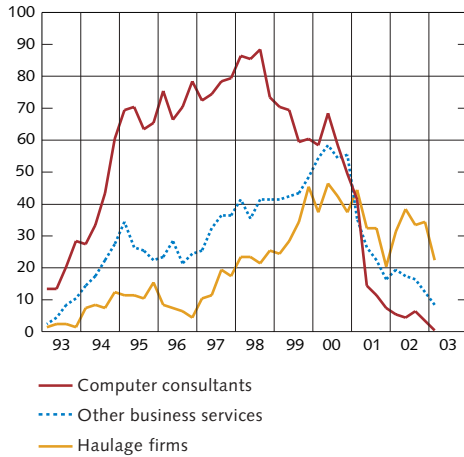
Source: National Institute of Economic Research.

Figure 39. Proportion of manufacturing firms reporting a shortage of labour.
Seasonally-adjusted, per cent



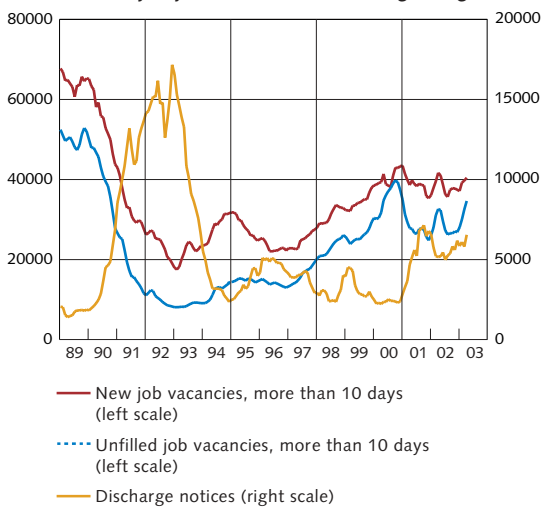
Source: National Institute of Economic Research.

Figure 40. Proportion of computer consultants, haulage firms and other business services reporting a shortage of labour.
Per cent



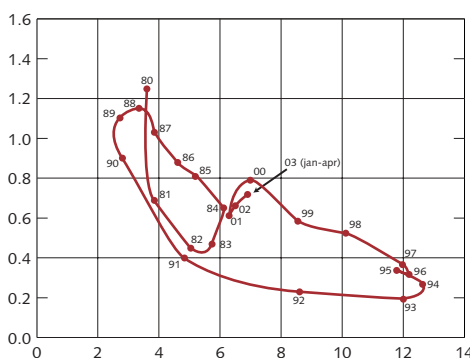
Source: National Institute of Economic Research.

Figure 41. New and unfilled vacancies with a duration of more than 10 days and discharge notices.
Seasonally-adjusted, three-month moving average



Source: National Labour Market Board.

Figure 42. The Beveridge curve.
Per cent



Note: The horizontal scale shows total unemployment while the vertical scale shows the relative job vacancy rate.

Sources: The National Labour Market Board and Statistics Sweden.

shows the relationship between unemployment and unfilled job vacancies as a proportion of the labour force. When economic activity deteriorates, there is a downward movement along the Beveridge curve due to a reduction in the number of vacancies coinciding with a rise in unemployment. An outward shift in the curve is interpreted to imply a poorer match between employers and job seekers. Since 1997, there has been an improvement in economic activity and a reduction in unemployment. Nevertheless, the number of vacancies has remained at a higher level than during previous economic booms. The position of the curve appears to reflect greater difficulty in recruiting staff. Between 2000 and 2001, the number of vacancies also began to decrease. This trend was broken last year when there was a weakening in the labour market. During the first four months of the year, total unemployment increased at the same time as there was a sharp rise in vacancies. Despite relatively high unemployment, firms appear to be having difficulty in filling the vacancies that arise, which is often taken as an indication that the labour market is not sufficiently flexible. One conclusion that can be drawn from the trend since 2001 is that there has been a poor match between the competence sought by firms and that possessed by jobseekers. This may be due to new jobseekers re-entering the labour market after completing studies in the Adult Education Initiative or other training programmes.

■ ■ Wage costs largely unchanged.

Since the March Inflation Report, preliminary statistics have been released over public and private sector wages for January and February 2003. While the rate of wage increases has remained higher in the public sector, the rate has fallen in both sectors. This decline has been partly due to the constitution of wage agreements but most likely also to poorer labour market conditions. The average rate of wage increases in the private sector fell back in January and February to 2.9 per cent, which was one percentage point lower than the corresponding period in 2002. In the public sector, wages increased on average by 3.8 per cent in January and February, also about one percentage point lower than last year. Wages increased more in county councils than in central government and municipalities. For the economy as a whole, the rate of wage increases during the first two months of the year averaged 3.2 per cent on a yearly basis. This figure will be revised upwards as statistics are adjusted to reflect retroactive disbursements.

The wage negotiations this autumn will begin in a climate in which unemployment is likely to be rising and secondary wage costs for firms are expected to be high. All in all, these factors are expected to subdue the rate of wage increases in the private sector. Nominal wages in the corporate sector are assumed to increase somewhat slower than in the assessment in the March Report, due in part to the expectations of both lower resource utilisation and higher unemployment.

The proposal in the Spring Fiscal Policy Bill for employers to pay an additional week of sick pay as from 1 July this year is expected to cause a further rise in secondary wage costs in the corporate sector of

approximately 0.1 percentage points this year and 0.2 percentage points in 2004. Firms' costs for contractual pensions were previously expected to rise this year by 1 per cent. Since then, the Official Statistics for 2002 have shown that negotiated employers' contributions for white-collar employees were overestimated, thus leading to lower-than-expected secondary wage costs last year. Given that contributions for contractual pensions are estimated to be as high as in the March assessment, this outcome means that the rate of increase of secondary wage costs this year will be higher. The effect on total wage costs, however, will be partly counteracted by the somewhat slower rate of nominal wage increases that is expected in the corporate sector.

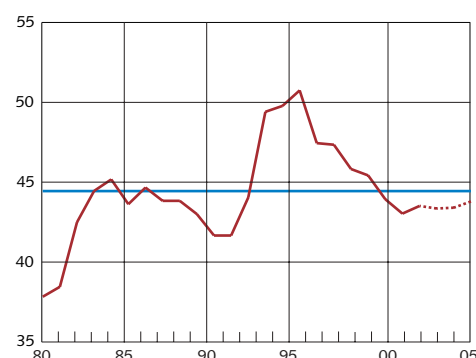
Average labour productivity was unexpectedly high in 2002. In the years ahead, it is judged that labour productivity will fall back gradually. The forecast of productivity is largely the same as in the March assessment.

On the whole, developments in unit labour costs will entail an easing in domestic inflationary pressure over the forecast period (see Table 5). Compared with the March Inflation Report, unit labour costs in the corporate sector are expected to increase somewhat slower during 2004 and 2005.

■ ■ Stabilisation of the profit share in the corporate sector.

The beginning of the 1990s saw a rise in the profit share in the corporate sector, due to a decreasing rate of wage increases and favourable productivity growth. One contributory factor was the ability of export firms to raise prices in Swedish kronor following the krona's depreciation. Since 1995, the profit share in the corporate sector has fallen. In manufacturing, the profit share rose during the 1990s but dropped in a number of sectors including financial services and construction. The profit share in the corporate sector is expected to stabilise over the forecast period and approach the average for the period 1980-2002 (see Figure 43).

Figure 43. Profit share in the corporate sector.
Per cent of GDP



Note. The horizontal line represents the average for the period 1980-2002.

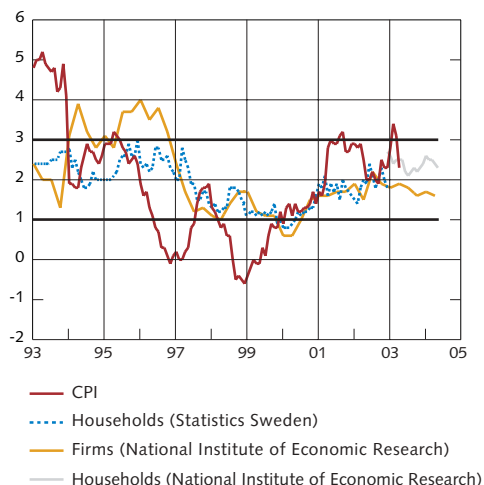
Sources: Statistics Sweden and the Riksbank.

Table 5. Labour market forecast in the main scenario.
Percentage 12-month change

	2002	2003	2004	2005
Nominal wage, corporate sector	3.9	3.5 (3.6)	3.5 (3.7)	3.6 (3.8)
Other wage costs, corporate sector	-0.3	1.2 (1.0)	0.4 (0.2)	0.2 (0.2)
Total wage costs, corporate sector	3.6	4.7 (4.6)	3.8 (3.9)	3.7 (3.8)
Labour productivity, corporate sector	4.1	2.7 (2.7)	2.3 (2.3)	2.2 (2.2)
Unit labour costs, corporate sector	-0.5	2.0 (2.0)	1.5 (1.6)	1.5 (1.7)
Nominal wage, total economy	4.0	3.7 (3.8)	3.7 (3.9)	3.7 (3.9)
Total wage costs, total economy	3.8	4.9 (4.8)	4.0 (4.0)	3.9 (4.0)
Labour force	4418	0.4 (0.0)	0.2 (0.2)	0.4 (0.4)
Number employed	4242	-0.4 (-0.6)	0.3 (0.5)	0.6 (0.5)
Mean working time	-1.2	-0.2 (0.1)	0.3 (0.1)	-0.2 (0.0)
Hours worked	-1.2	-0.6 (-0.5)	0.8 (0.6)	0.4 (0.5)
Open unemployment, per cent of labour force	4.0	4.8 (4.6)	4.7 (4.4)	4.5 (4.3)
Labour market programmes, per cent of labour force	2.6	2.6 (2.6)	2.4 (2.3)	2.2 (2.2)

Note. The outcome for Other wage costs has been adjusted for the correct negotiated contributions for white-collar employees in the corporate sector and is calculated as the annual change in the labour costs index less the annual rate of wage increases in the corporate sector. Besides statutory and negotiated employer contributions, the item includes, for example, the specific wage tax, sick wages, weekend wages, holiday wages, changes in working time for salaried employees, cash compensation and benefits in kind. The item "Other wages costs, corporate sector" is used as an approximation for the total economy. The figures in parentheses are the assessments in the March Report.

Figure 44. CPI and inflation expectations of households and firms.
Per cent



Note. The curve for expectations has been displaced 12 months into the future to coincide with the CPI outcomes to which the expectations refer. The procedure for collecting households' purchasing plans was changed in January 2002.

Sources: The National Institute of Economic Research and Statistics Sweden.

Inflation expectations

Since the March Inflation Report, households' expectations of inflation one year ahead have dropped slightly to a current level of 2.3 per cent. Moreover, the April business tendency survey of the National Institute of Economic Research has indicated that firms also anticipate somewhat lower inflation one year ahead (see Figure 44). Since the previous survey in January, the expectations of firms have been revised downward from 1.7 to 1.6 per cent.

Prospera's latest survey in May also indicates small changes, both in the short and long term, compared with its March survey (see Table 6). In the survey, the expectations of various market participants exceeded the inflation target for all time horizons.

In conclusion, expectations of inflation one year, two years and five years ahead are slightly higher than the Riksbank's target, and there has not been any appreciable change in these expectations since the March Inflation Report.

Table 6. Expected 12-month rates of inflation according to Prospera's survey in May 2003, unless otherwise specified.

1 year ahead		
Money market agents	2.0	(-0.2)
Employer organisations	2.4	(0.1)
Employee organisations	2.5	(0.1)
Purchasing managers, trade	2.4	(0.1)
Purchasing managers, manufacturing	2.6	(0.0)
Households (HIP) in May (April)	2.3	(-0.1)
Firms (business tendency survey) in April (January)	1.6	(-0.1)
2 years ahead		
Money market agents	2.1	(0.0)
Employer organisations	2.4	(0.1)
Employee organisations	2.6	(0.2)
Purchasing managers, trade	2.4	(0.0)
Purchasing managers, manufacturing	2.7	(0.1)
5 years ahead		
Money market agents	2.1	(0.0)
Employer organisations	2.3	(0.2)
Employee organisations	2.5	(0.0)
Purchasing managers, trade	2.4	(-0.1)
Purchasing managers, manufacturing	2.5	(0.0)

Note. The figures in parentheses are the change in percentage points from the previous survey.

Sources: National Institute of Economic Research and Prospera Research AB.

The main scenario

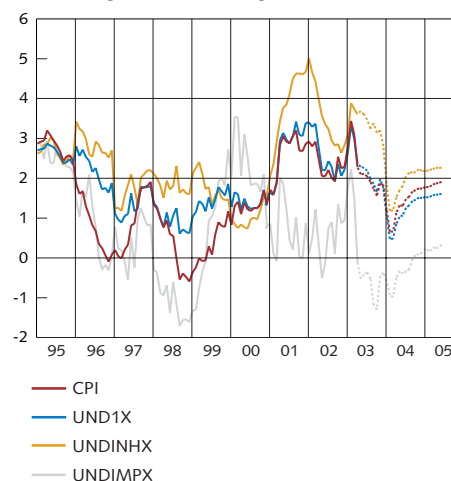
Inflation has fallen back somewhat more than forecast in the March Inflation Report. This is mainly due to the unexpectedly large decline in oil prices. In April, annual CPI inflation was 2.3 per cent while UND1X inflation was 2.4 per cent (see the box "Recent developments in inflation"). Inflation adjusted for changes in energy prices has not changed appreciably over recent months, amounting in April to 1.8 per cent (see Figure 1).

Electricity prices have fallen as expected and contributed to lower inflationary pressure (see Figure B1). As in the March Inflation Report, it is anticipated that electricity prices for consumers will continue to ease over the summer and autumn, thus contributing to a further fall in inflation. This fall is expected to arise from a reduction in the margins of electricity trading companies. These are currently relatively high, especially for the non fixed-price contracts. Spot prices for electricity, on the other hand, are expected to remain approximately at their present level for the remainder of the year (see Figure B1). Electricity prices for consumers will also be affected by the requirement from 1 May this year for all users and suppliers of electricity to buy a certain percentage of electricity from renewable sources in relation to their electricity consumption. This has led to higher costs for electricity consumers and is expected to provide a contribution to CPI and UND1X inflation of approximately 0.1 percentage points from May this year.

The price of crude oil has fallen quicker than expected and is expected in coming months to be approximately USD 1 lower than the estimate in the March Report. At the same time, the krona has had a stronger appreciation against the dollar than was anticipated earlier. These factors will contribute to a lower price of petrol than was foreseen in the March Inflation Report, thus restraining imported inflation over the coming months. Lower international export prices on manufactured products also imply such a development. In the longer term, however, the assessment of the price of crude oil and the exchange rate remains unchanged. A further appreciation in the krona from current levels is also expected. Together with a slight decline in oil prices and a moderate rate of increase in other international prices, it is anticipated that this will contribute to low imported inflation over the entire forecast period (see Figure 45). Import prices should rise towards the end of the forecast period, however, as the appreciation of the krona diminishes and the rate of increase in international export prices gains momentum. Given that global resource utilisation is expected to be somewhat lower, a more subdued development in international export prices is foreseen compared with the assessment in the March Inflation Report. However, the effect of this on Swedish import prices is counteracted by a number of factors including the fact that the krona will appreciate less at the end of the forecast period than was assumed in the previous assessment.

The quantity of unutilised resources is expected to be somewhat larger than assumed in the March Inflation Report. This implies a moderate rate of increase in corporate sector wage costs. Together with

Figure 45. Different measures of inflation, outcome and forecasts according to main scenario. Percentage 12-month change



Sources: Statistics Sweden and the Riksbank.

favourable productivity growth, this should produce weak domestic price pressure over the entire forecast period. All in all, total wage costs in the corporate sector are expected to grow at a somewhat weaker rate than previously forecast. Wages are anticipated to rise at a slower rate, which will only be partly counteracted by the somewhat higher secondary wage costs that are expected to arise from the proposal to increase employer responsibility for sick pay. Furthermore, slightly lower resource utilisation is expected to squeeze corporate sector profit margins, which should have a slight easing effect on inflationary pressure over the forecast period.

In the main scenario, interest rates are judged to increase by 2.7 per cent this year and 2.3 per cent per year over the following two years. Lower energy prices and lower interest rates in the short term have entailed a slight downward revision of the assessment of rent developments compared with the March Inflation Report.

A continuation of the green tax shift is expected to give rise to effects on CPI inflation from higher energy and carbon dioxide taxes during 2004 and 2005 as well (see Table 7). Together with rising interest expenditure, this implies that CPI inflation is expected to increase quicker than UND1X over the forecast period.

Table 7. A comparison of CPI and UND1X.
Per cent and percentage points.

	June 2003	June 2004	June 2005
UND1X	2.3	1.1	1.6
+ Effects of changes in mortgage interest expenditure	-0.4	0.0	0.1
+ Effects of changes in indirect taxes and subsidies	0.2	0.2	0.2
= CPI	2.1	1.3	1.9

Sources: Statistics Sweden and the Riksbank.

All in all, CPI inflation is expected to exceed the inflation target of 2 per cent in 2003 and fall short of the target in 2004. At the end of the forecast period, when the effects of energy price fluctuations have subsided, CPI in the main scenario is anticipated to be just below the target. UND1X inflation is also expected to fall short of the inflation target. Compared with the assessment in the March Inflation Report, the forecasts of CPI and UND1X inflation have been revised downward (see Table 8 and Figure 2). In the main scenario, CPI inflation is foreseen at 1.3 per cent one year ahead and 1.9 per cent two years ahead. The corresponding figures for UND1X inflation are 1.1 per cent and 1.6 per cent, respectively (see Table 8). Adjusted for the effects of energy prices, UND1X is also expected to be below 2 per cent for more or less the entire forecast period (see Figure 1 and Table 8).

Table 8. Forecasts of inflation in the main scenario.
Percentage 12-month change

	Annual average		12-month rate		
	2003	2004	June 2004	March 2005	June 2005
CPI	2.2 (2.5)	1.3 (1.5)	1.3 (1.4)	1.8 (2.0)	1.9
UND1X	2.3 (2.4)	1.1 (1.2)	1.1 (1.2)	1.6 (1.8)	1.6
UNDINHX	3.4 (3.4)	1.8 (2.0)	1.8 (2.0)	2.2 (2.5)	2.3
UNDIMPX	0.0 (0.5)	-0.3 (-0.3)	-0.4 (-0.5)	0.2 (0.2)	0.3
UND1X excluding energy	1.9 (2.1)	1.8 (2.1)	1.8 (2.1)	1.8 (2.0)	1.8

Note. The figures in parentheses show the corresponding forecast in the previous Inflation Report. UND1X is CPI inflation excluding household mortgage interest expenditure and the direct effects of changes in taxes and subsidies. UNDINHX refers only to prices of mainly domestic goods in UND1X. UNDIMPX refers to prices of mainly imported goods in UND1X.

Sources: Statistics Sweden and the Riksbank.

The risk spectrum

In the March Inflation Report, it was assessed that there was an equal risk of inflation being higher than that depicted in the main scenario as there was of it being lower. The international economic climate was judged primarily to imply a risk of lower inflation than in the main scenario, while domestic cost developments were considered to point to higher inflation. Electricity price developments and wage formation were both seen as factors that could lead to higher costs and inflation than was assumed in the main scenario. A further source of concern was the situation in Iraq, where war had not yet broken out at the time of the March Report. The Iraq crisis was judged to entail risks of both lower and higher inflation, although the Riksbank also emphasised that the crisis implied risks for the world economy that were generally difficult to analyse.

The general level of uncertainty now appears to have subsided somewhat compared with the time of the March Report. The end of the actual war in Iraq has led to a substantial reduction in the associated inflation risks. However, the risks related to the international economic climate and domestic cost developments have remained and must be weighed up. A new source of uncertainty is the development of the US dollar. A continued substantial weakening of the dollar could have more dramatic implications for the world economy and most likely lead to lower inflation in Sweden.

■ ■ International downside risk.

The risks for the international trend, at least as regards the implications for Sweden, appear to be concentrated primarily in the euro area. While forecasts of economic growth in the euro area, primarily for Germany and France, have been revised downwards since the March Report, there are still risks of even poorer development. Firms in the euro area have not come as far as their US counterparts in the adjustment of their balance sheets following the share price bubble. Furthermore, the firms are contending with cost problems, partly as a result of weak productivity growth. This could lead to a further postponement of investment. Consumers in the euro area have become increasingly pessimistic, which makes it uncertain whether private consumption will be able to provide support in the near future. Furthermore, there is still a need for tighter fiscal policy in several European countries. These problems are not just a result of the economic climate but are also of a more structural, long-term nature. The problems in the German banking sector could also lead to lower growth in Germany than was assumed in the Riksbank's main scenario for the world economic trend. A number of analysts have pointed out that the weak demand climate in Germany could lead to a period of extremely low inflation or even deflation. Such a development could involve risks if it was to be prolonged. At the same time, it should be noted that the competitiveness of German firms would improve if the rate of price increases was lower than in other countries. An overall assessment of the implications of this risk for Swedish inflation is

difficult to make. However, the risk of a prolonged period of deflation is judged to be limited.

The significance of the different signals about the US economy are even more difficult to interpret. There are some indications that economic activity could become weaker than was assumed in the Riksbank's main scenario, but it is also possible that the potential for growth in the US economy has been underestimated. The adjustment of household and corporate balance sheets that followed the decline in share prices appears to have progressed further in the United States than in the euro area. In addition, economic policy will remain more expansionary in the United States as far as can be judged. This suggests that the upturn in the US economy, when it comes, could proceed quicker than forecast.

The development of the dollar exchange rate also constitutes a source of uncertainty. All other things being equal, a weaker dollar than assumed in the main scenario is likely to strengthen US economic activity and weaken activity in Europe. All in all, this could entail lower rises in import and consumer prices in Sweden than is forecast in the main scenario.

The spread of SARS is yet another risk to the world economy that has proved difficult to analyse. The illness has had major consequences for the tourist industry in Asia, but travel and trade in other goods and services have declined as well. SARS entails a risk of lower growth in the countries that have been most affected, but it is difficult to assess the longer-term effects on inflation which, for Sweden, are likely to be very small.

All in all, there is still judged to be a risk of international economic developments leading to lower inflation than in the main scenario. As a result of the decline in the risks associated with the Iraq war and the downward revisions in euro area growth forecasts in the main scenario, however, the risk of even poorer development should be considered smaller now than in the March Inflation Report.

■ ■ **Concern over domestic cost development.**

As regards domestic cost developments, it is still uncertain how the outcome of the wage negotiations in the local government sector will affect the rate of wage increases in the total Swedish economy. Furthermore, total wage costs will be affected by higher premiums for contractual pensions and increased costs for sick leave. There remains a risk that the effects of these factors on inflation have been underestimated. This also applies to potential contagion effects from the high level of electricity prices and the eventuality that consumer prices will not fall back as expected. However, since the date of the March Inflation Report, spot prices on the Nordic electricity exchange, Nord Pool, have declined largely as expected, while forward rates have remained at approximately the same level as before. This suggests that this risk is now smaller than in the previous assessment.

The Riksbank's assessment is that wage formation and electricity prices still constitute risks of higher inflation than in the main scenario.

As with the risk of lower inflation due to the international economic climate, it is judged that the lower Swedish resource utilisation over the forecast period has reduced the risks associated with domestic cost developments since the March Inflation Report. As regards cost developments, there has been a slight reduction in the upside risks, as costs thus far have largely followed the Riksbank's expected main scenario, while the downside risks attributable to the international economic climate have diminished following downward revisions in the forecasts in the main scenario. An additional downside risk for Swedish inflation is that associated with a further weakening of the dollar.

The overall assessment is that uncertainty in the inflation forecast has eased somewhat since the March Inflation Report and that the risks of inflation being lower than in the main scenario outweigh the risks of higher inflation. The Riksbank's assessment is shown in Figures 46 and 47 which include estimates of uncertainty in the forecasts of CPI and UND1X inflation.

All in all, the Riksbank's overall assessment, taking into account the risk spectrum, is that inflation one to two years ahead will fall short of the inflation target.

Table 9. Inflation forecasts including the risk spectrum.
Percentage change

	Annual average		12-month rate	
	2003	2004	June 2004	June 2005
CPI	2.2 (2.5)	1.3 (1.5)	1.2 (1.4)	1.8
UND1X	2.2 (2.4)	1.0 (1.2)	1.0 (1.2)	1.5

Note. The table gives the mean values of the inflation assessment's probability distribution (see Figures 2 and 3). The figures in parentheses are the corresponding values in the March Report.

Source: The Riksbank.

Table 10. UND1X inflation (12-month rate).
Percentage probability for different outcomes

	UND1X<1	1≤UND1X<2	2≤UND1X≤3	UND1X>3	Total
June 2004	49 (62)	43 (34)	8 (4)	0 (0)	100
June 2005	33 (26)	32 (31)	24 (27)	11 (16)	100

Note. The figures show the probability of UND1X inflation being in the column's interval. The figures in parentheses show the corresponding forecast in the March Inflation Report.

Source: The Riksbank.

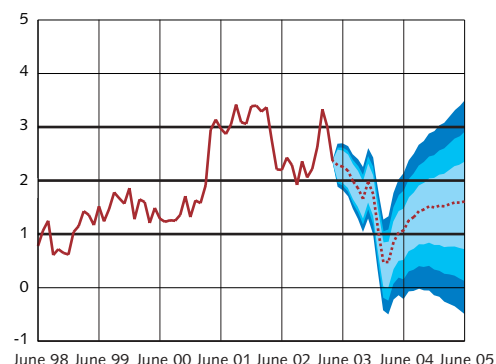
Table 11. CPI inflation (12-month rate).
Percentage probability for different outcomes

	CPI<1	1≤CPI<2	2≤CPI≤3	CPI>3	Total
June 2004	37 (47)	49 (44)	13 (9)	1 (0)	100
June 2005	24 (20)	31 (29)	28 (30)	17 (21)	100

Note. The figures show the probability of CPI inflation being in the column's interval. The figures in parentheses show the corresponding forecast in the March Inflation Report.

Source: The Riksbank.

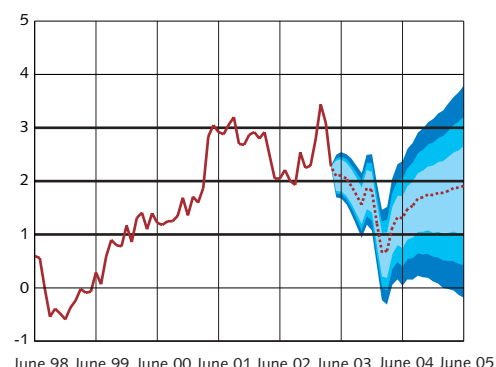
Figure 46. UND1X with uncertainty intervals.
Percentage 12-month change



Note. The uncertainty intervals show the 50, 75 and 90 per cent chances of UND1X inflation being within the respective range. The broken line represents the main scenario's forecast. The horizontal lines at 1, 2 and 3 per cent are the Riksbank's inflation target and the tolerance interval for the annual change in the CPI.

Sources: Statistics Sweden and the Riksbank.

Figure 47. CPI with uncertainty intervals.
Percentage 12-month change



Note. The uncertainty intervals show the 50, 75 and 90 per cent chances of CPI inflation being within the respective range. The broken line represents the main scenario's forecast. The horizontal lines at 1, 2 and 3 per cent are the Riksbank's inflation target and the tolerance interval for the annual change in the CPI.

Sources: Statistics Sweden and the Riksbank.

Long-term trends

Monetary policy is usually assumed to achieve its greatest impact on inflation one to two years ahead. For this reason the Riksbank's analysis of inflation and economic developments is mainly aimed at this horizon. However, this does not mean that developments prior to or beyond this horizon are of no interest for monetary policy decisions. Consequently, this section discusses underlying economic tendencies that affect developments in the medium term and their implications for monetary policy. These mainly concern the economy's long-term growth potential.

The main scenario forecasts a relatively moderate rise in economic activity in Sweden. One reason for this is that total resource utilisation in the economy is higher today than after the crisis years at the beginning of the 1990s, when open unemployment was appreciably higher. The opportunity to make use of unutilised capacity to achieve rapid growth is thus more limited today. However, long-term potential growth in the economy is partly determined by other factors than those that drive economic activity, more precisely technical advances and long-term growth in the factors of production such as labour and capital. An analysis of the development of productivity and the labour supply in Sweden shows that there have been major changes over time and that both positive and negative tendencies exist.

Following a period of decline in productivity in the 1970s and positive though low increases in productivity in the 1980s of around 1 per cent per year or below, the 1990s witnessed growth in productivity that remained around 2 per cent per year. There is much to suggest that this is a sustainable rate of increase in the long term, which is one reason for the optimism about Swedish economic growth for the years beyond the Riksbank's normal forecast horizon. The development of the labour supply is more worrying. Estimates of population growth and its composition have shown that the percentage of younger and older age groups in the economically active part of the population is going to increase. These groups tend to be employed to a lesser extent than other groups. A continuation of this relationship would result in slower growth in the total future supply of labour in the economy. This is important for monetary policy as it affects the rate at which the economy can grow without leading to capacity restrictions or higher inflation.

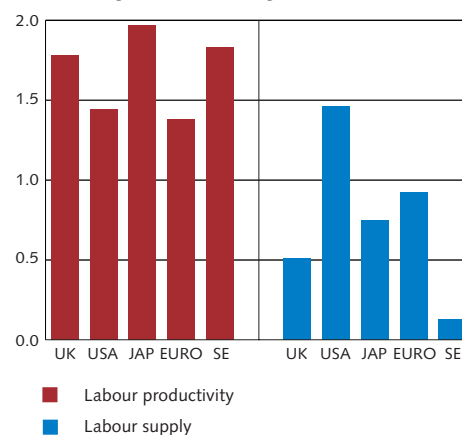
An international comparison shows that average labour productivity has been relatively high in Sweden while the supply of labour has only made a marginal contribution to growth (see Figure 48). The supply of labour has increased over a long period of time due to the fact that a larger number of people in the economically active part of the population have become available to the labour market. The number of people in employment has also risen. However, mean working time per employee has dropped to the same degree, which means that the number of hours worked today is at approximately the same level as it was twenty years ago (see Figure 49). Taking into

account an increasingly older population and given current tendencies towards decreasing mean working time, it is likely that growth in the supply of labour will be weak even in the event of a reduction in sick leave from current levels.

In the Inflation Report, a number of risks have been identified that could lead to lower or higher inflation during the forecast period. One of these risks in the main scenario concerns wage formation, and the long-term development in this area gives reason to believe that risks will remain even beyond the forecast horizon. On average, wages in Sweden have increased at a faster rate than our competitors in Europe. The fact that it has been possible to maintain our competitive situation at the same time is due to relatively favourable productivity growth. If some of this growth in productivity has stemmed from the availability of unutilised resources following the crisis at the beginning of the 1990s, a slowdown in the growth of wage costs will be necessary if cost problems are to be avoided. Lower rises in nominal wages and potentially tighter economic policy would enable a situation with higher inflation to be avoided. Wage formation determines the ability to keep increases in real wage costs in line with the economy's long-term productivity trend and thereby to contribute to the stabilisation of employment. Furthermore, the wage formation process must be able to handle necessary shifts in relative wages within a limited scope between different sectors and groups.

It is evident that wage formation and the functioning of the labour market are of vital importance for assessments of the future inflationary trend. The trends that can be currently identified in the Swedish economy indicate a number of future changes which will affect the conditions for keeping inflation at a low level.

Figure 48. Labour productivity and the labour supply, 1980-2001.
Percentage 12-month change



Note. Labour productivity is calculated per person in employment.

Source: OECD.

Figure 49. Population, number of employed, number of hours worked and mean working time.
Index 1970=100



Source: Statistics Sweden.